

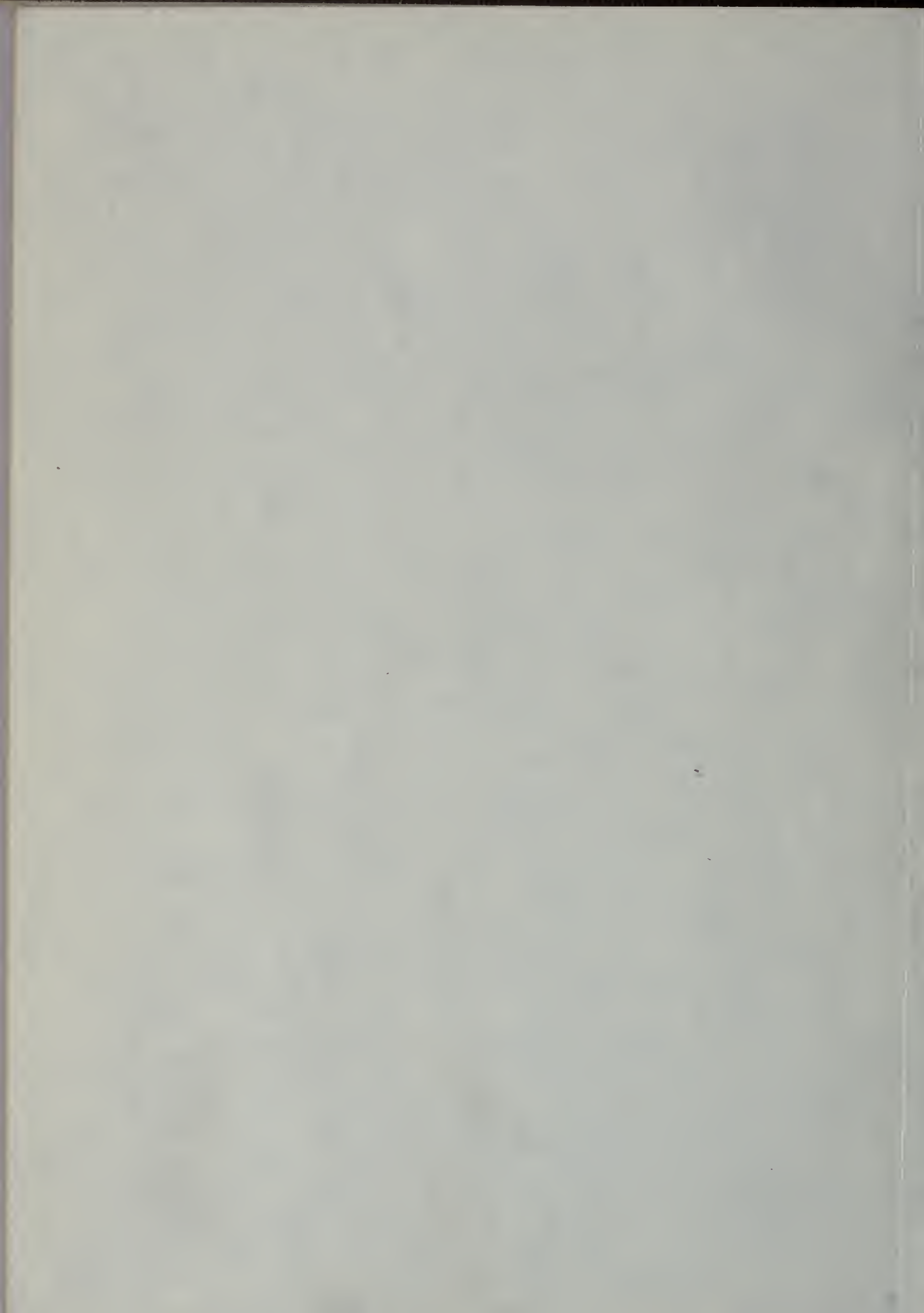


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STATE OF CALIFORNIA

The Resources Agency

Department of Water Resources

BULLETIN No. 130-73

# HYDROLOGIC DATA: 1973

Volume I: NORTH COASTAL AREA

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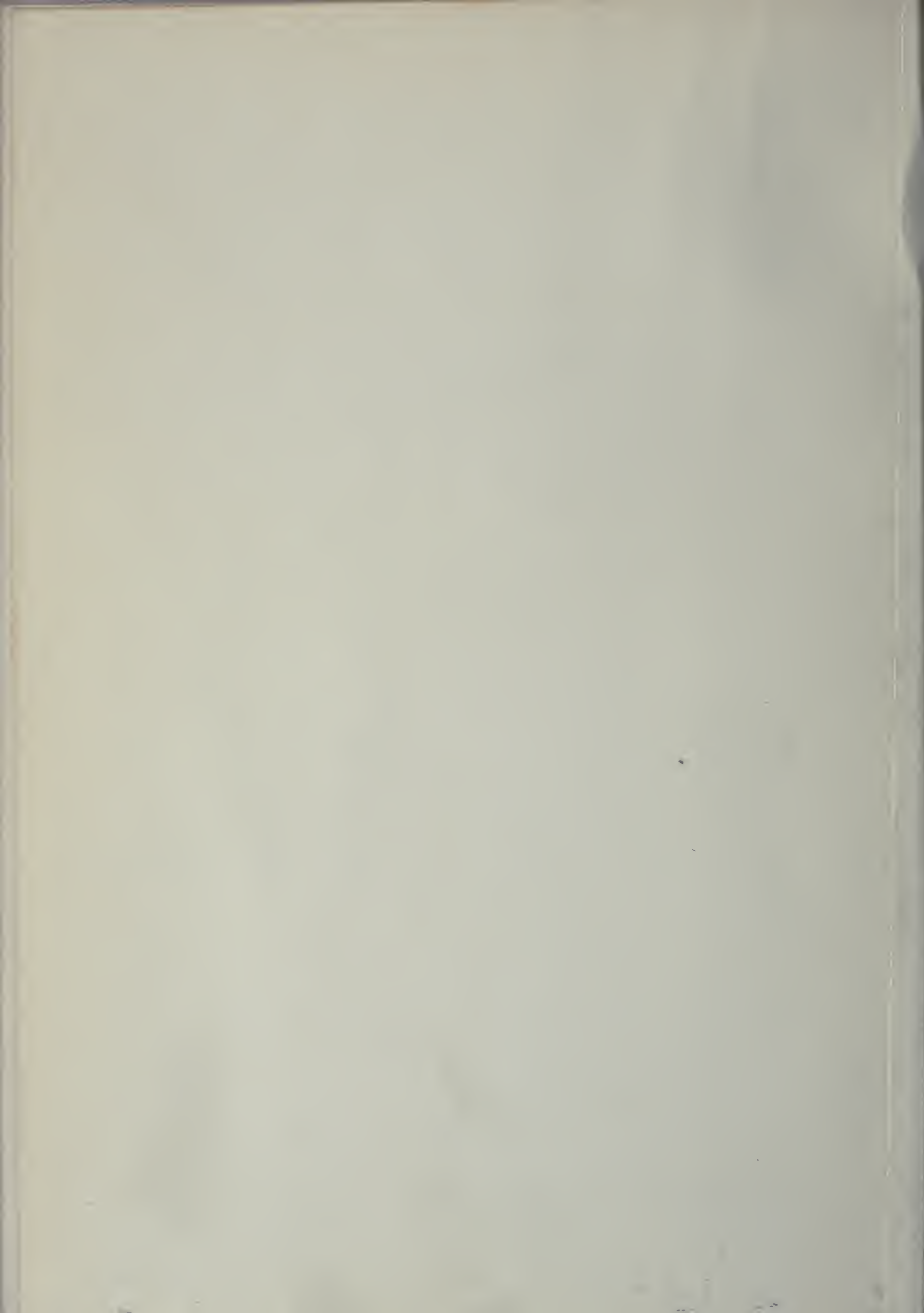
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State of California

JOHN R. TEERINK

*Director*  
Department of Water Resources



STATE OF CALIFORNIA  
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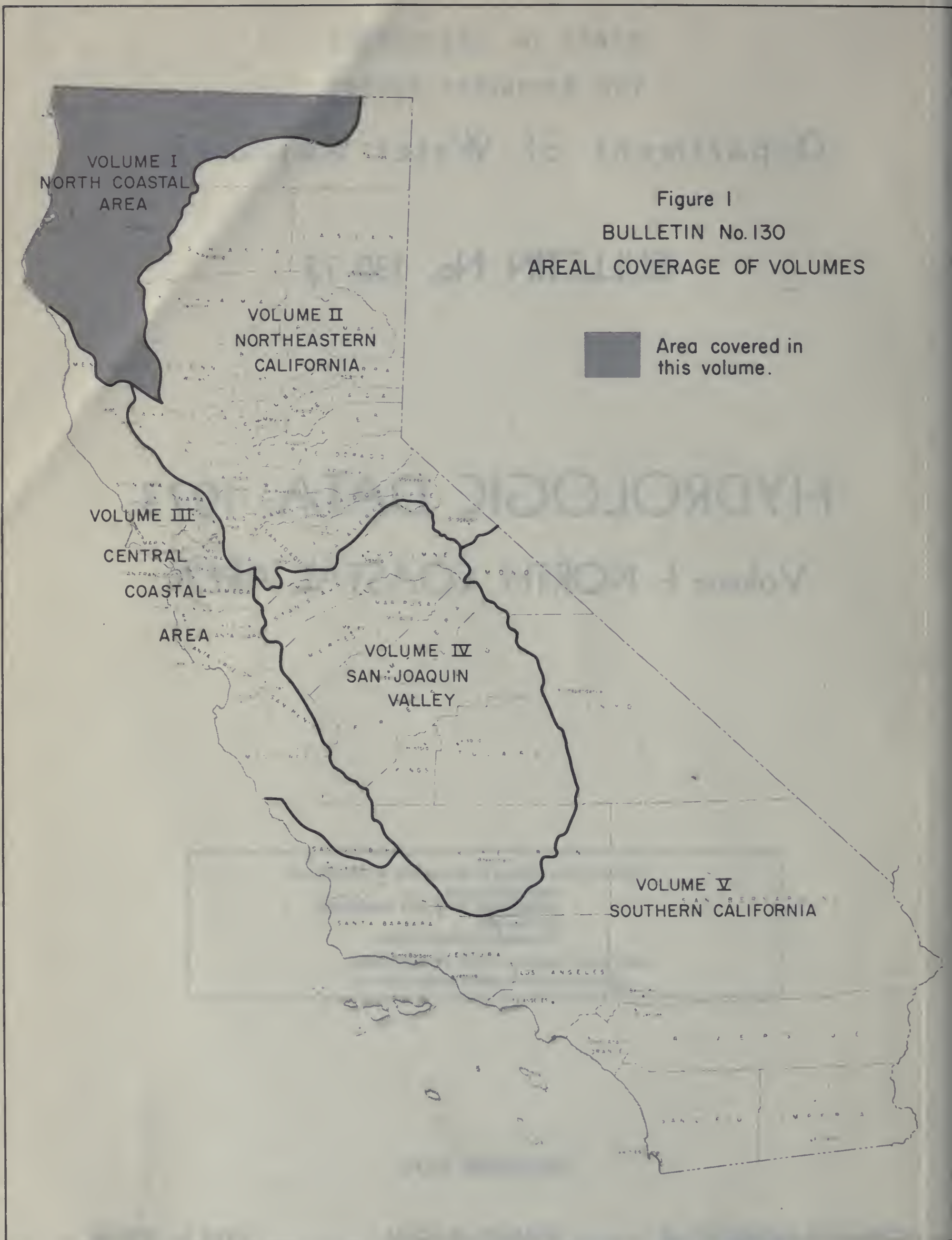
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## FOREWORD

The hydrologic data programs of the Department of Water Resources supplement the data collection activities of other agencies and help satisfy the needs for data on the quality and quantity of water in the State. Bulletin No. 130-73 presents accurate, comprehensive, and timely hydrologic data which provide a more complete knowledge of the factors affecting our environment and are prerequisites for effective planning and operation of water facilities.

The Bulletin No. 130 series is published annually in five volumes. Each volume presents hydrologic data for one of five reporting areas of the State. These areas are delineated on the map on the opposite page.



John R. Teerink, Director  
Department of Water Resources  
The Resources Agency  
State of California  
October 4, 1974

# METRIC CONVERSION TABLE

| <u>English Unit</u>                       |                                                                                                                     | <u>Equivalent Metric Unit</u> |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Inch (in.)                                | 2.54                                                                                                                | Centimeters                   |
| Foot (ft.)                                | 0.3048                                                                                                              | Meter                         |
| Mile (mi.)                                | 1.609                                                                                                               | Kilometers                    |
| Acre                                      | 0.405                                                                                                               | Hectare                       |
| Square mile (sq. mi.)                     | 2.590                                                                                                               | Square kilometer              |
| U. S. gallon (gal.)                       | 3.785                                                                                                               | Liters                        |
| Acre-foot (acre-ft.)                      | 1,233.5                                                                                                             | Cubic meters                  |
| U. S. gallon per minute (gpm)             | 0.0631                                                                                                              | Liter per second              |
| Cubic feet per second (cfs)               | 1.7                                                                                                                 | Cubic meters per minute       |
| Degrees Fahrenheit ( $^{\circ}\text{F}$ ) | Degrees Celsius or Degrees<br>Centigrade ( $^{\circ}\text{C}$ ) = ( $^{\circ}\text{F} - 32^{\circ}$ ) $\frac{5}{9}$ |                               |

# WATER QUALITY CONVERSION TABLE

| <u>Weight Per Weight</u>     | <u>Equivalent Weight Per Volume</u> |
|------------------------------|-------------------------------------|
| Part per million (ppm)       | Milligram per liter (mg/l)          |
| Part per billion (ppb)       | Microgram per liter (ug/l)          |
| Part per trillion (ppt)      | Nanogram per liter (ng/l)           |
| Equivalent per million (epm) | Milliequivalent per liter (me/l)    |

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| APPENDIX F: WASTE WATER DATA, which appeared in certain volumes<br>of the Bulletin No. 130 series, has been discontinued. For<br>information regarding waste water, the reader is referred to<br>the recently reactivated Bulletin No. 68 series: "Inventory<br>of Waste Water Production and Waste Water Reclamation<br>Practices in California". |             |

## ABSTRACT

The report contains tables showing data on surface water flow, ground water levels, and surface and ground water quality in the North Coastal area during the 1972-73 water year. Figures show the location of climatological stations, surface water measurement stations, surface water sampling stations, and ground water basins.

## ACKNOWLEDGMENTS

Valuable assistance and contributions were received from several agencies and many private cooperators. The cooperation of the National Weather Service (formerly the U. S. Weather Bureau) and the U. S. Geological Survey was particularly helpful and is gratefully appreciated.

A special note of thanks is extended to the many loyal and dedicated weather observers whose unselfish efforts have contributed immeasurably to our knowledge of historical weather conditions in the North Coastal area.

State of California  
The Resources Agency  
DEPARTMENT OF WATER RESOURCES

RONALD REAGAN, Governor  
NORMAN B. LIVERMORE, JR., Secretary for Resources  
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## APPENDIX A

### CLIMATOLOGICAL DATA

#### TABLE A-1

#### PRECIPITATION IN NORTH COASTAL AREA DURING WATER YEAR 1973

Table A-1 summarizes monthly precipitation totals for selected stations for the 1973 water year, October 1, 1972, through September 30, 1973. The table shows stations by assigned number, name, and county. Location is defined by latitude and longitude in degrees to the third decimal, and stations are located on the map on the preceding page.

Precipitation values are shown to the nearest hundredth (.01) of an inch. Where digital recording rain gages are used, a zero is shown in the second decimal place, even though these instruments record to only the nearest tenth (.1) of an inch. The following notations are used to qualify the values:

- No record or incomplete record
- B Record began
- E Wholly or partially estimated
- N Record ends
- T Trace, an amount too small to measure

Precipitation data collected by the National Weather Service and local observers and cooperators in the North Coastal area are available in greater detail in other reports. The National Weather Service publishes a report entitled "Climatological Data for California" and a companion volume, "Hourly Precipitation Data". Department of Water Resources Bulletin No. 165, "Climatological Stations in California, 1971, Indexed by County", contains station information on both active and historical precipitation measurement stations.

In addition, evaporation data and daily climatologic data, including temperatures, together with local conditions and qualifying remarks, are available in the files of the Department of Water Resources.

The county codes (CO) used in Table A-1 are shown below:

| <u>County</u> | <u>Code</u> |
|---------------|-------------|
| Del Norte     | 08          |
| Glenn         | 11          |
| Humboldt      | 12          |
| Lake          | 17          |
| Mendocino     | 23          |
| Modoc         | 25          |
| Siskiyou      | 47          |
| Trinity       | 53          |

TABLE A-1

## PRECIPITATION IN NORTH COASTAL AREA DURING WATER YEAR 1973

| CO | STA NO    | LAT    | LONG    | ELEV | STATION NAME          | TOTAL | OCT  | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY  | JUN                 | JUL             | AUG        | SEP  |
|----|-----------|--------|---------|------|-----------------------|-------|------|-------|-------|-------|-------|-------|-------|------|---------------------|-----------------|------------|------|
| 12 | F60008800 | 40.183 | 123.600 | 435  | ALDERPOINT            | 49.13 | 3.08 | 6.78  | 7.09  | 14.01 | 8.58  | 5.56  | 1.33  | .31  | .00                 | 0.00            | 0.00       | 2.39 |
| 12 | F50025300 | 40.971 | 124.089 | 217  | ARCATA A P            | 43.13 | 1.81 | 5.26  | 9.34  | 8.29  | 4.18  | 7.46  | 1.07  | 1.33 | .84                 | 0.04            | 0.07       | 3.44 |
| 53 | F40073800 | 40.748 | 123.244 | 1270 | HIG RAR RANGER STA    | 29.96 | 1.71 | 4.70  | 4.04  | 7.58  | 5.12  | 3.21  | .35   | .50  | .04                 | 0.14            | 0.00       | 2.07 |
| 47 | F20078601 | 41.591 | 122.328 | 2955 | RIG SPRINGS 4 E       | 6.11  | .30  | .36   | 1.17  | .55   | .25   | .81   | .34   | 1.12 | .00                 | 0.12            | 0.00       | 1.09 |
| 23 | F60104600 | 39.686 | 123.660 | 1480 | BRANISCOMB 2 NW       | 83.50 | 2.58 | 12.39 | 16.18 | 23.54 | 12.49 | 9.25  | 1.55  | .64  | .02                 | 0.00            | 0.04       | 4.82 |
| 12 | F70107040 | 40.108 | 123.028 |      | BRICFLAND - WOLF      | .00-  | 3.03 | 11.58 | 18.67 | 24.60 | 12.03 | 9.62  | 1.28  | .64  | .00                 | 0.00-0.00-0.00- |            |      |
| 12 | F60108000 | 40.516 | 123.816 | 2050 | BRIDGEVILLE 4 NW      | 58.14 | 3.01 | 8.82  | 9.81  | 12.96 | 8.54  | 8.01  | 2.30  | .80  | .00                 | 0.00            | 0.00       | 3.85 |
|    | F60108400 |        |         |      |                       | 48.60 | 2.50 | 7.60  | 7.80  | 10.00 | 8.30  | 7.70  | 1.00  | .80  | .20                 | 0.00            | 0.00       | 2.70 |
| 12 | F60118100 | 40.350 | 124.108 | 410  | BULL CREEK            | 57.77 | 3.36 | 10.30 | 11.91 | 8.38  | 14.19 | 8.51  | .60   | .43  | .07                 | 0.00            | 0.02       | 0.00 |
| 12 | F60121000 | 40.308 | 123.906 | 200  | BURLINGTON ST PARK    | .00-  | 3.45 | 8.76  | 12.25 | 14.04 | 10.34 | .00-  | .00-  | .30  | .00                 | 0.00-0.00-3.43  |            |      |
| 53 | F40121500 | 40.796 | 123.479 | 2150 | BURNY RANCH 15        | 40.49 | 2.08 | 4.74  | 8.16  | 9.42  | 7.35  | 5.37  | 1.20  | .39  | .09                 | 0.07            | 0.02       | 2.10 |
| 12 | F50123300 | 40.766 | 123.900 | 420  | BUTLER VALLEY RANCH   | 48.79 | 2.62 | 6.90  | 9.56  | 9.09  | 5.93  | 7.89  | 1.98  | .94  | .32                 | 0.00            | 0.02       | 3.54 |
| 47 | F20131600 | 41.300 | 122.800 | 3136 | CALLAHAN RANGER STA   | 13.60 | .89  | 2.08  | 2.77  | 2.57  | 2.73  | .49   | .62   | .12  | .00                 | 0.21            | 0.00       | 1.11 |
| 47 | F30160600 | 41.100 | 123.850 | 2980 | CFCILVILLE 5 SE       | 28.43 | 1.80 | 3.40  | 7.50  | 5.94  | 3.11  | 2.07  | .96   | .69  | .03                 | 0.72            | 0.00       | 2.21 |
| 47 | F30179900 | 41.708 | 123.448 | 975  | CLAP CREEK            | 46.93 | 1.31 | 6.41  | 12.60 | 12.67 | 4.68  | 5.20  | .88   | .35  | .05                 | 0.00            | 0.00       | 2.78 |
| 53 | F40188600 | 41.083 | 122.700 | 2500 | COFFE CREEK RS        | .00-  | 4.40 | 11.00 | 7.30  | .00-  | .00-  | 5.30  | .60   | .10  | .00                 | 0.20            | 0.00-2.10  |      |
| 47 | F30199000 | 41.983 | 122.333 | 2700 | COPCO DAM NO 1        | 12.58 | 1.00 | 1.01  | 3.24  | 1.93  | .97   | 1.57  | .64   | .98  | .04                 | 0.03            | 0.02       | 1.15 |
| 23 | F60208100 | 39.783 | 123.250 | 1385 | COVELO                | 42.51 | 2.16 | 6.19  | 8.39  | 12.59 | 6.27  | 4.59  | 1.01  | .12  | .00                 | 0.00            | 0.00       | 1.19 |
| 23 | F60208400 | 39.833 | 123.083 | 1514 | COVELO EEL RIVER RS   | .00-  | 1.44 | 6.65  | 3.87  | .00-  | 5.40  | 4.40  | .50   | .20  | .00-0.00            | 0.00            | 0.00-      |      |
| 08 | F00214700 | 41.766 | 124.200 | 40   | CRESCENT CITY 1 N     | 54.97 | 2.18 | 6.19  | 14.40 | 9.60  | 5.38  | 9.26  | 1.65  | 1.93 | .62                 | 0.00            | 0.20       | 3.56 |
| 08 | F00214800 | 41.800 | 124.083 | 120  | CRESCENT CITY 7 ENF   | 47.52 | 2.45 | 7.22  | 14.58 | 13.91 | 6.80  | 11.77 | 2.09  | 2.18 | .84                 | 0.03            | 0.04       | 5.61 |
| 08 | F00215000 | 41.766 | 124.200 | 50   | CRESCENT CITY RMS     | 55.30 | 1.90 | 6.50  | 11.90 | 10.50 | 6.30  | 10.20 | 1.10  | 2.30 | .70                 | 0.00            | 0.20       | 3.70 |
| 08 | F00215200 | 41.755 | 123.991 | 360  | CRESCENT CITY 11 F    | 81.62 | 3.02 | 10.18 | 19.70 | 16.72 | 7.24  | 11.36 | 2.32  | 2.31 | .74                 | 0.00            | 0.00       | 8.03 |
| 08 | F00215375 | 41.783 | 124.050 |      | CRESCENT CITY SELIG   | .00-  | 2.45 | 7.88  | 15.10 | 14.78 | 7.40  | 12.59 | 1.45  | 2.42 | .00                 | 0.00-0.00-0.00- |            |      |
| 23 | F60221800 | 39.833 | 123.633 | 1270 | CUMMINGS              | 75.94 | 2.84 | 11.00 | 14.27 | 20.02 | 12.99 | 8.91  | 1.18  | .52  | .03                 | 0.00            | 0.30       | 3.48 |
| 47 | F10248000 | 41.955 | 121.908 | 4240 | DOPRIS INSPECT STA    | 8.42  | .89  | .82   | 1.96  | .87   | .60   | .62   | .52   | 1.03 | .04                 | 0.20            | 0.04       | 0.83 |
| 23 | F60249000 | 39.700 | 123.394 |      | DOS RIOS RAMSEY       | .00-  | 3.65 | 11.12 | 11.62 | 17.04 | 10.70 | 6.45  | .96   | .54  | .00                 | 0.00-0.00-0.00- |            |      |
| 08 | F00274900 | 42.000 | 123.714 | 1711 | FLK VALLEY            | 73.90 | 3.18 | 9.34  | 18.46 | 16.85 | 5.01  | 10.10 | 2.63  | 1.23 | .55                 | 0.00            | 0.07       | 7.28 |
| 47 | F20289900 | 41.466 | 122.700 | 2912 | ETNA                  | 19.39 | .84  | 1.45  | 6.29  | 4.53  | 1.74  | 1.18  | .54   | .17  | .01                 | 0.00            | 0.00       | 2.14 |
| 12 | F60291000 | 40.800 | 124.166 | 43   | EUKEKA WR CITY        | 36.08 | 1.97 | 5.41  | 7.42  | 6.47  | 3.85  | 7.10  | .35   | .85  | .23                 | 0.00            | 0.08       | 2.35 |
| 12 | F60303000 | 40.598 | 124.276 | 10   | FERDALE 2NW           | 38.44 | 3.33 | 4.87  | 6.59  | 8.52  | 4.35  | 7.40  | .78   | .43  | .02                 | 0.00            | 0.18       | 1.97 |
| 12 | F50304100 | 40.943 | 124.018 | 285  | FELDBROOK 4 N RM      | 52.30 | 2.35 | 6.00  | 11.85 | 9.50  | 4.80  | 8.55  | 1.15  | 1.70 | 1.15                | 0.00            | 0.15       | 5.10 |
| 08 | F30312200 | 41.811 | 122.371 | 2960 | FOOTHILL SCHOOL       | 8.02  | .31  | .67   | 1.92  | 1.08  | .39   | .98   | .58   | 1.05 | .03                 | 0.00            | 0.00       | 1.01 |
| 53 | F40313000 | 40.383 | 123.333 | 2340 | FOREST GLEN           | 62.43 | 2.79 | 7.70  | 13.21 | 20.07 | 9.30  | 4.68  | 1.41  | .64  | .13                 | 0.00            | 0.00       | 2.50 |
| 08 | F00317300 | 41.866 | 124.150 | 46   | FORT DICK             | 63.49 | 2.39 | 7.21  | 13.54 | 12.22 | 6.86  | 10.49 | 1.77  | 2.59 | 1.06                | 0.00            | 0.25       | 5.06 |
| 47 | F20317600 | 41.583 | 122.714 | 3324 | FORT JONES 4 FSE      | 13.10 | .60  | 1.30  | 3.70  | 2.20  | 1.00  | 1.00  | .50   | .80  | .10                 | 0.30            | 0.00       | 1.60 |
| 47 | F20318200 | 41.600 | 122.850 | 2720 | FORT JONES RANGER ST  | 17.54 | .66  | 1.77  | 6.15  | 4.17  | 1.28  | .66   | .78   | .34  | .00                 | 0.02            | 0.00       | 1.71 |
| 12 | F60319400 | 40.600 | 124.150 | 60   | FORTUNA               | 42.61 | 3.54 | 6.01  | 6.97  | 7.90  | 5.79  | 7.77  | 1.42  | .74  | .06                 | 0.00            | 0.06       | 2.35 |
| 12 | F60321700 | 40.306 | 124.065 | 2500 | FOX CAMP              | .00-  | 4.33 | 13.32 | 16.00 | .00-  | 16.00 | 10.60 | 1.84  | .55  | .22                 | 0.00            | 0.00-0.00- |      |
| 12 | F60332000 | 40.100 | 123.800 | 340  | GARRERVILLE           | 56.78 | 2.89 | 7.75  | 10.45 | 14.83 | 10.68 | 5.55  | 1.71  | .34  | .02                 | 0.00            | 0.01       | 2.55 |
| 12 | F60332201 | 40.100 | 123.794 | 540  | GARRERVILLE RMS       | 59.37 | 3.15 | 7.61  | 10.61 | 15.56 | 10.66 | 7.05  | 1.78  | .40  | .05                 | 0.00            | 0.02       | 2.43 |
| 08 | F00335700 | 41.866 | 123.966 | 384  | GASQUET RANGER STA    | 72.61 | 2.74 | 8.51  | 16.73 | 14.62 | 6.80  | 11.77 | 2.10  | 1.70 | .99                 | 0.00            | 0.09       | 6.47 |
| 47 | F20361400 | 41.550 | 122.900 | 2818 | GREENVIEW             | 14.11 | .78  | 1.16  | 5.48  | 3.08  | .99   | .17   | .10   | .10  | .00                 | 0.00            | 0.00       | 1.35 |
| 47 | F30376100 | 41.800 | 123.383 | 1090 | HARRY CAMP RANGER STA | 38.40 | 1.58 | 4.53  | 10.71 | 10.30 | 3.62  | 4.31  | .50   | .32  | .06                 | 0.04            | 0.00       | 2.33 |
| 23 | F60378500 | 39.989 | 123.611 | 1910 | HARRIS 7 SE           | 62.07 | 2.85 | 7.64  | 11.90 | 16.62 | 11.26 | 5.82  | 1.98  | .34  | .01                 | 0.00            | 0.45       | 3.30 |
| 47 | F30398700 | 42.000 | 122.633 | 2900 | HILTS                 | 15.79 | .81  | 1.62  | 4.57  | 3.27  | 1.37  | 1.33  | .58   | .63  | .02                 | 0.56            | 0.00       | 1.03 |
| 12 | F70407400 | 40.238 | 124.150 | 380  | HONEYDEW 2 WSW        | .00-  | 4.30 | 9.38  | 12.09 | .00-  | .00-  | .00-  | .00-  | .00- | .00-0.00-0.00-0.00- |                 |            |      |
| 12 | F40408200 | 41.050 | 123.666 | 350  | HOOPA                 | 53.29 | 2.44 | 7.66  | 13.34 | 11.59 | 6.03  | 6.66  | .98   | .60  | .11                 | 0.00            | 0.01       | 3.87 |
| 53 | F40419100 | 40.616 | 123.466 | 1260 | HYAMPON               | 37.79 | 1.52 | 4.29  | 9.46  | 10.01 | 6.08  | 3.83  | .27   | .37  | .01                 | 0.04            | 0.00       | 1.41 |
| 08 | F00420200 | 41.900 | 123.769 | 1250 | IDLEWILD RMS          | 58.35 | 2.58 | 7.48  | 13.99 | 12.41 | 4.98  | 7.50  | 2.80  | 1.04 | .78                 | 0.00            | 0.05       | 4.74 |
| 08 | F30457700 | 41.516 | 124.033 | 25   | KLAMATH               | 65.60 | 1.95 | 8.52  | 14.10 | 12.30 | 6.98  | 11.34 | 1.96  | 1.93 | .71                 | 0.00            | 0.19       | 5.52 |
| 12 | F60458700 | 40.633 | 123.900 | 2356 | KNEELAND 10 SSE       | .00-  | 1.85 | 7.29  | 10.04 | 10.51 | 6.51  | .00-  | 11.35 | 1.24 | .10                 | 0.00            | 0.06       | 4.02 |
| 12 | F50460200 | 40.866 | 123.958 | 150  | KORREL                | 45.61 | 1.70 | 5.26  | 9.59  | 7.78  | 5.93  | 8.33  | 1.24  | 1.07 | .20                 | 0.00            | 0.10       | 3.71 |
| 47 | F10483800 | 41.729 | 121.508 | 4770 | LAVA BEDS NAT MON     | 12.48 | 1.89 | 1.54  | .88   | 1.75  | 1.69  | 1.22  | .45   | 1.49 | .00                 | 0.55            | 0.12       | 0.40 |
| 23 | F60485100 | 39.700 | 123.483 | 1640 | LAYTONVILLE           | .00-  | 2.96 | 9.75  | 11.26 | 16.51 | 8.23  | 4.76  | .00-  | .20  | .00                 | 0.00            | 0.00       | 2.40 |
| 47 | F20498402 | 41.716 | 122.383 | 2725 | LITTLE SHASTA         | 8.30  | .49  | .60   | 1.77  | .93   | .45   | 1.11  | .36   | 1.49 | .00                 | 0.05            | 0.05       | 1.10 |
| 23 | F60508860 | 39.594 | 123.374 |      | LONGVALE              | .00-  | 3.00 | 8.08  | 17.14 | 18.43 | 11.33 | 6.40  | .45   | .12  | .00                 | 0.00-0.00-0.00- |            |      |
| 53 | F50524400 | 40.450 | 123.533 | 2775 | MAD RIVER RANGER STA  | 57.10 | 3.39 | 7.63  | 12.37 | 13.13 | 9.38  | 5.70  | 1.51  | .62  | .05                 | 0.04            | 0.00       | 3.88 |
| 12 | F60571100 | 40.143 | 123.783 | 263  | MIRANDA 4 SE          | 55.30 | 3.30 | 6.70  | 10.50 | 13.90 | 10.90 | 6.00  | 1.50  | .30  | .10                 | 0.00            | 0.00       | 2.10 |
| 12 | F60571300 | 40.200 | 123.766 | 400  | MIRANDA SPENGLER RM   | 52.28 | 2.72 | 7.37  | 9.83  | 13.18 | 9.27  | 6.00  | 1.48  | .28  | .00                 | 0.00            | 0.00       | 2.15 |
| 47 | F20578300 | 41.728 | 122.526 | 2500 | MONTAGUE              | .00-  | .64  | .73   | .00-  | .87   | .45   | .59   | .42   | .04  | .00                 | 0.28            | 0.06       | 0.62 |
| 47 | F20578500 | 41.750 | 122.466 | 2640 | MONTAGUE 3 NE         | 7.50  | .30  | .90   | 1.90  | .90   | .50   | .60   | .40   | .70  | .00                 | 0.30            | 0.00       | 1.00 |
| 47 | F10594100 | 41.783 | 122.000 | 4250 | MOUNT HERRON R 5      | 8.71  | .83  | .97   | 1.72  | .79   | .91   | .37   | .27   | .54  | .00                 | 1.06            | 0.11       | 1.14 |
| 12 | F60605000 | 40.261 | 123.466 | 190  | MYERS FLAT            | 62.01 | 3.67 | 8.75  | 13.68 | 16.29 | 9.27  | 5.94  | 1.30  | .44  | .01                 | 0.00            | 0.00       | 2.66 |
| 47 | F30632900 | 41.833 | 123.850 | 1963 | OAK KNOLL 05 2        | 17.49 | .48  | 2.20  | 4.73  | 3.33  | 1.07  | 1.40  | .98   | 1.61 | .01                 | 0.15            | 0.00       | 1.44 |
| 12 | F60640800 | 40.083 | 123.661 | 2225 | OLD HARRIS            | 60.30 | 2.01 | 9.12  | 10.47 | 15.86 | 9.94  | 7.72  | 1.75  | .53  | .09                 | 0.00            | 0.00       | 2.71 |
| 12 | F50649701 | 41.323 | 124.001 | 50   | ORICK 3 NNE           | .00-  | .00- | .00-  | 9.64  | 10.40 | 5.05  | 10.24 | 1.12  | 1.63 | .56                 | 0.00            | 0.00       | 3.79 |
| 12 | F50649702 | 41.323 | 124.043 | 75   | ORICK ARCATA PEDON    | 52.35 | 2.25 | 7.47  | 9.88  | 9.90  | 6.32  | 9.3   |       |      |                     |                 |            |      |

## TABLE A-2

### STORAGE GAGE PRECIPITATION DATA

Table A-2 lists storage gages for which the seasonal accumulation of precipitation is reported. These gages are located in the remote mountain regions where no observers are available to operate conventional rain gages. Storage precipitation gages are tanks with capacity for storing an entire year's rainfall, along with antifreeze to melt frozen precipitation and oil to prevent evaporation losses. Once each year, in the summer or early fall, the precipitation that has accumulated since the last measurement is measured and then emptied out. With the addition of the proper amount of oil and antifreeze, the gage is ready to receive the next season's amount. Although logistics preclude conducting the measurement operation exactly at the end of the water year and exactly one year following the previous measurement, data from the gages fairly accurately depict the total precipitation for the water year.

TABLE A-2  
STORAGE GAGE PRECIPITATION DATA  
NORTH COASTAL AREA

| Station                        | Measuring Agency | 1972-73 Season     |                         |
|--------------------------------|------------------|--------------------|-------------------------|
|                                |                  | Measurement Period | Precipitation in Inches |
| NORTH COASTAL AREA             |                  |                    |                         |
| <u>SMITH RIVER</u>             |                  |                    |                         |
| Camp Six Lookout               | DWR              | 7-11-72 to 6-18-73 | 77.53                   |
| <u>LOST RIVER-BUTTE VALLEY</u> |                  |                    |                         |
| Bray 10 WSW                    | DWR              | 7-11-72 to 6-19-73 | 20.75                   |
| Crowder Flat                   | DWR              | 7-20-72 to 6-27-73 | 17.03                   |
| Long Bell Station              | DWR              | 7-13-72 to 6-21-73 | 25.11                   |
| Medicine Lake                  | DWR              | 7-13-72 to 6-21-73 | 41.57                   |
| <u>SHASTA-SCOTT VALLEYS</u>    |                  |                    |                         |
| Gazelle Lookout                | DWR              | 7-12-72 to 6-19-73 | 12.33                   |
| <u>KLAMATH RIVER</u>           |                  |                    |                         |
| Beswick 7S                     | DWR              | 7-11-72 to 6-19-73 | 30.81                   |
| Blue Creek Mountain            | DWR              | 7-10-72 to 6-17-73 | 88.82                   |
| <u>TRINITY RIVER</u>           |                  |                    |                         |
| Board Camp Mountain            | DWR              | 7-10-72 to 6-17-73 | 91.60                   |
| Mumbo Basin                    | DWR              | 7-12-72 to 6-20-73 | 55.44                   |
| <u>EEL RIVER</u>               |                  |                    |                         |
| Plaskett                       | DWR              | 7-25-72 to 6-14-73 | 65.48                   |

DWR - Department of Water Resources



SURFACE WATER MEASUREMENT STATIONS

## APPENDIX B

### SURFACE WATER MEASUREMENTS

This appendix presents surface water data for the 1973 water year, the period from October 1, 1972 to September 30, 1973. The data consist of summary tables of monthly and annual unimpaired runoff from four major North Coastal streams and daily mean discharges at the Department's two North Coastal area gaging stations (see Figure B-1).

In addition to data collected and published by the Department of Water Resources in this appendix, the U. S. Geological Survey collects and publishes data from many additional gaging stations for the same report area. This work is done under a federal-state cooperative contract, or through cooperative arrangements with other local or government agencies. Major exportations from the North Coastal Area, made through the U. S. Bureau of Reclamation's Judge Francis Carr Powerplant and the Pacific Gas and Electric Company's Potter Valley Powerhouse, are shown in the USGS report listed below. The data published in the following reports together with this report present a comprehensive analysis of the water resources for the area:

1. "Water Resources Data for California  
Part I. Surface Water Records  
Volume 1: Colorado River Basin, Southern Great  
Basin, and Pacific Slope Basins excluding Central  
Valley"  
United States Department of the Interior, Geological  
Survey  
Prepared in cooperation with the California  
Department of Water Resources and with other agencies.
2. Bulletin 120, "Water Conditions in California",  
Fall Issue, Department of Water Resources.
3. Bulletin 157, "Index of Stream Gaging Stations in  
and Adjacent to California, 1970". June 1971.  
Department of Water Resources.

TABLE B-1 ANNUAL UNIMPAIRED RUNOFF

Unimpaired runoff is defined as the flow that would occur naturally at a point in a stream if there were: (1) no upstream controls such as dams or reservoirs; (2) no artificial diversions or accretions; and (3) no change in ground water storage resulting from development.

TABLE B-1  
ANNUAL UNIMPAIRED RUNOFF

In Percent of Average

| WATER YEAR                | KLAMATH RIVER,<br>COPCO TO<br>ORLEANS | SALMON RIVER<br>AT<br>SOMESBAR | TRINITY RIVER<br>AT<br>LEWISTON | EEL RIVER<br>AT<br>SCOTIA |
|---------------------------|---------------------------------------|--------------------------------|---------------------------------|---------------------------|
| Average Annual<br>Runoff* | 4,434                                 | 1,225                          | 1,227                           | 5,379                     |
| 1920-21                   |                                       |                                | 146                             | 145                       |
| 1921-22                   |                                       |                                | 64                              | 69                        |
| 1922-23                   |                                       |                                | 56                              | 51                        |
| 1923-24                   |                                       |                                | 22                              | 16                        |
| 1924-25                   |                                       |                                | 122                             | 133                       |
| 1925-26                   |                                       |                                | 66                              | 61                        |
| 1926-27                   |                                       |                                | 149                             | 146                       |
| 1927-28                   | 86                                    | 89                             | 86                              | 86                        |
| 1928-29                   | 57                                    | 48                             | 43                              | 35                        |
| 1929-30                   | —                                     | 63                             | 66                              | 65                        |
| 1930-31                   | 40                                    | 39                             | 33                              | 30                        |
| 1931-32                   | 76                                    | 85                             | 59                              | 67                        |
| 1932-33                   | 81                                    | 83                             | 65                              | 68                        |
| 1933-34                   | 49                                    | 47                             | 56                              | 46                        |
| 1934-35                   | 81                                    | 93                             | 79                              | 84                        |
| 1935-36                   | 90                                    | 93                             | 83                              | 107                       |
| 1936-37                   | 73                                    | 80                             | 81                              | 66                        |
| 1937-38                   | 179                                   | 182                            | 171                             | 200                       |
| 1938-39                   | 58                                    | 62                             | 47                              | 50                        |
| 1939-40                   | 102                                   | 104                            | 131                             | 136                       |
| 1940-41                   | 100                                   | 103                            | 208                             | 153                       |
| 1941-42                   | 104                                   | 108                            | 147                             | 138                       |
| 1942-43                   | 133                                   | 142                            | 90                              | 106                       |
| 1943-44                   | 62                                    | 52                             | 53                              | 42                        |
| 1944-45                   | 82                                    | 92                             | 85                              | 89                        |
| 1945-46                   | 117                                   | 124                            | 115                             | 112                       |
| 1946-47                   | 58                                    | 63                             | 60                              | 49                        |
| 1947-48                   | 96                                    | 101                            | 98                              | 88                        |
| 1948-49                   | 72                                    | 78                             | 89                              | 77                        |
| 1949-50                   | 92                                    | 96                             | 70                              | 77                        |
| 1950-51                   | 142                                   | 147                            | 131                             | 133                       |
| 1951-52                   | 149                                   | 159                            | 148                             | 149                       |
| 1952-53                   | 146                                   | 147                            | 131                             | 133                       |
| 1953-54                   | 138                                   | 131                            | 129                             | 129                       |
| 1954-55                   | 60                                    | 48                             | 60                              | 60                        |
| 1955-56                   | 186                                   | 179                            | 165                             | 190                       |
| 1956-57                   | 97                                    | 97                             | 88                              | 81                        |
| 1957-58                   | 184                                   | 184                            | 219                             | 217                       |
| 1958-59                   | 77                                    | 82                             | 85                              | 77                        |
| 1959-60                   | 78                                    | 77                             | 84                              | 87                        |
| 1960-61                   | 102                                   | 98                             | 99                              | 100                       |
| 1961-62                   | 74                                    | 78                             | 85                              | 73                        |
| 1962-63                   | 133                                   | 140                            | 130                             | 132                       |
| 1963-64                   | 90                                    | 92                             | 65                              | 64                        |
| 1964-65                   | 161                                   | 152                            | 140                             | 175                       |
| 1965-66                   | 101                                   | 91                             | 110                             | 96                        |
| 1966-67                   | 117                                   | 103                            | 135                             | 123                       |
| 1967-68                   | 76                                    | 77                             | 82                              | 79                        |
| 1968-69                   | 135                                   | 133                            | 143                             | 161                       |
| 1969-70                   | 143                                   | 130                            | 130                             | 139                       |
| 1970-71                   | 192                                   | 200                            | 136                             | 148                       |
| 1971-72                   | 142                                   | 148                            | 94                              | 87                        |
| 1972-73**                 | 81                                    | 73                             | 113                             | 112                       |

\* Average annual unimpaired runoff in thousands of acre-feet adjusted to the 50-year period October 1920 through September 1970.

\*\* Preliminary data subject to revision.



TABLE B-2  
MONTHLY UNIMPAIRED RUNOFF

In Percent of Average

| MONTH      |         | KLAMATH RIVER,<br>COPCO TO<br>ORLEANS | SALMON RIVER<br>AT<br>SOMESBAR | TRINITY RIVER<br>AT<br>LEWISTON | EEL RIVER<br>AT<br>SCOTIA |
|------------|---------|---------------------------------------|--------------------------------|---------------------------------|---------------------------|
| October    | Percent | 68                                    | 61                             | 93                              | 64                        |
| 1972       | Average | 86                                    | 21                             | 21                              | 55                        |
| November   | Percent | 49                                    | 37                             | 108                             | 110                       |
| 1972       | Average | 215                                   | 55                             | 51                              | 284                       |
| December   | Percent | 138                                   | 93                             | 124                             | 100                       |
| 1972       | Average | 487                                   | 128                            | 99                              | 939                       |
| January    | Percent | 119                                   | 97                             | 160                             | 176                       |
| 1973       | Average | 655                                   | 165                            | 110                             | 1225                      |
| February   | Percent | 64                                    | 64                             | 111                             | 96                        |
| 1973       | Average | 607                                   | 158                            | 149                             | 1176                      |
| March      | Percent | 66                                    | 65                             | 90                              | 104                       |
| 1973       | Average | 588                                   | 158                            | 157                             | 795                       |
| April      | Percent | 62                                    | 72                             | 103                             | 71                        |
| 1973       | Average | 627                                   | 179                            | 217                             | 550                       |
| May        | Percent | 71                                    | 80                             | 139                             | 66                        |
| 1973       | Average | 587                                   | 192                            | 241                             | 239                       |
| June       | Percent | 45                                    | 48                             | 85                              | 50                        |
| 1973       | Average | 335                                   | 108                            | 123                             | 79                        |
| July       | Percent | 99                                    | 58                             | 78                              | 83                        |
| 1973       | Average | 125                                   | 35                             | 36                              | 22                        |
| August     | Percent | 82                                    | 71                             | 24                              | 86                        |
| 1973       | Average | 67                                    | 15                             | 13                              | 10                        |
| September  | Percent | 108                                   | 129                            | 99                              | 265                       |
| 1973       | Average | 56                                    | 10                             | 9                               | 7                         |
| 1972-73    | Percent | 81                                    | 73                             | 113                             | 112                       |
| Water Year | Average | 4,434                                 | 1,225                          | 1,227                           | 5,379                     |

Note: The percent values are preliminary data subject to revision. Average annual unimpaired runoff in thousands of acre-feet adjusted to the 50-year period October 1920 through September 1970.

TABLE B-3 DAILY MEAN DISCHARGE

A stream gaging station is named after the stream and the nearest post office. Each of the two gaging stations has been assigned an identification number, the letter and first digit of which denote the hydrographic unit; the remaining digits further identify the stations.

North Coastal Area

|                              |                    |
|------------------------------|--------------------|
| F0 - Smith River             | F4 - Trinity River |
| F1 - Lost River-Butte Valley | F5 - Mad River     |
| F2 - Shasta-Scott Valleys    | F6 - Eel River     |
| F3 - Klamath River           | F7 - Mattole River |

The discharges estimated for periods of no record or invalid record are shown with the letter "E". Also qualified by the letter "E" are discharges obtained from extended ratings which exceed 140 percent of the highest measured flow-rate on which the rating curve was based.

The discharge figures in this table have been rounded off as follows:

1. Daily flows - cubic feet per second

|         |           |               |
|---------|-----------|---------------|
| 0.0     | - 9.9     | nearest Tenth |
| 10      | - 999     | " Unit        |
| 1,000   | - 9,999   | " Ten         |
| 10,000  | - 99,999  | " Hundred     |
| 100,000 | - 999,999 | " Thousand    |

2. Monthly means - cubic feet per second

|         |           |               |
|---------|-----------|---------------|
| 0.0     | - 99.9    | nearest Tenth |
| 100     | - 9,999   | " Unit        |
| 10,000  | - 99,999  | " Ten         |
| 100,000 | - 999,999 | " Hundred     |

3. Yearly totals - acre-feet

|           |             |              |
|-----------|-------------|--------------|
| 0.0       | - 9,999     | nearest Unit |
| 10,000    | - 99,999    | " Ten        |
| 100,000   | - 999,999   | " Hundred    |
| 1,000,000 | - 9,999,999 | " Thousand   |

TABLE B-3  
DAILY MEAN DISCHARGE  
(IN CUBIC FEET PER SECOND)

| WATER YEAR | STATION NO. | STATION NAME                      |
|------------|-------------|-----------------------------------|
| 1973       | F21300      | LITTLE SHASTA RIVER NEAR MONTAGUE |

| DAY     | OCT.  | NOV.  | DEC. | JAN.  | FEB.  | MAR. | APR. | MAY  | JUNE | JULY  | AUG.  | SEPT. | DAY     |
|---------|-------|-------|------|-------|-------|------|------|------|------|-------|-------|-------|---------|
| 1       | 8.0   | 8.5   | 6.7  | 5.4   | 7.2   | 14   | 17   | 26   | 13   | 5.3   | 3.6   | 3.5   | 1       |
| 2       | 7.8   | 8.2   | 6.7  | 5.4   | 6.4   | 12   | 15   | 25   | 12   | 5.1   | 3.5   | 3.5   | 2       |
| 3       | 7.5   | 8.7   | 6.2  | 5.4 * | 6.6   | 12   | 16   | 25   | 11   | 5.0   | 3.5   | 3.5   | 3       |
| 4       | 7.3   | 11    | 6.5  | 5.4   | 6.9   | 11   | 19   | 26   | 11   | 5.0   | 3.6   | 3.4   | 4       |
| 5       | 7.2   | 9.2   | 6.7  | 5.4   | 10    | 9.7  | 24   | 25   | 10   | 4.9   | 3.5   | 3.4   | 5       |
| 6       | 7.1   | 7.7   | 6.7  | 5.4   | 11    | 11   | 27   | 24   | 9.7  | 4.9   | 3.4   | 3.4   | 6       |
| 7       | 7.1   | 8.4   | 7.0  | 5.4   | 12    | 9.7  | 26   | 23   | 9.3  | 4.8   | 3.5   | 3.5   | 7       |
| 8       | 7.2   | 8.5   | 7.0  | 5.4   | 12    | 9.5  | 25   | 22   | 9.0  | 4.7   | 3.4   | 3.5   | 8       |
| 9       | 8.4   | 7.9   | 7.0  | 6.0   | 12    | 10   | 27   | 22   | 8.8  | 4.6   | 3.5   | 3.5   | 9       |
| 10      | 8.0   | 7.6   | 7.2  | 6.2   | 12    | 17   | 28   | 21   | 8.6  | 4.5 * | 3.5   | 3.4   | 10      |
| 11      | 9.9 * | 8.1   | 7.5  | 7.2   | 11    | 16   | 30   | 20   | 8.3  | 4.5   | 3.5   | 3.4   | 11      |
| 12      | 8.8   | 7.7   | 7.8  | 11    | 9.6   | 13   | 31   | 20   | 8.2  | 4.7   | 3.5   | 3.4   | 12      |
| 13      | 8.3   | 7.5   | 7.8  | 27    | 8.5   | 12   | 32   | 20   | 8.2  | 4.3   | 3.5   | 3.4   | 13      |
| 14      | 8.6   | 7.5   | 7.8  | 20    | 8.5   | 11   | 26   | 21   | 8.1  | 4.2   | 3.4 * | 3.5   | 14      |
| 15      | 8.7   | 7.2   | 7.8  | 15    | 8.3   | 12   | 26   | 21   | 7.8  | 4.1   | 3.4   | 3.5   | 15      |
| 16      | 9.2   | 7.7   | 8.0  | 20 *  | 8.4   | 13   | 27   | 20   | 7.7  | 4.9   | 3.3   | 3.5   | 16      |
| 17      | 8.8   | 6.9 * | 15   | 16    | 9.0   | 13   | 31   | 19   | 7.6  | 5.6   | 3.4   | 3.5   | 17      |
| 18      | 8.4   | 7.2   | 22   | 12    | 8.3   | 15   | 24 * | 18 * | 7.3  | 4.5   | 3.4   | 3.6 * | 18      |
| 19      | 8.2   | 7.7   | 31   | 9.6   | 7.7   | 16   | 22   | 17   | 7.0  | 4.4   | 3.3   | 6.1   | 19      |
| 20      | 8.0   | 7.5   | 21   | 9.2   | 8.2   | 14   | 20   | 16   | 6.6  | 4.4   | 3.3   | 5.6   | 20      |
| 21      | 7.8   | 7.3   | 28   | 10    | 8.6 * | 14   | 21   | 16   | 6.3  | 4.3   | 3.3   | 4.3   | 21      |
| 22      | 7.8   | 7.2   | 32   | 7.5   | 9.1   | 15   | 24   | 15   | 6.2  | 4.2   | 3.3   | 4.6   | 22      |
| 23      | 7.8   | 6.7   | 16   | 12    | 9.4   | 15   | 26   | 15   | 6.3  | 4.0   | 3.3   | 5.5   | 23      |
| 24      | 7.5   | 6.9   | 15   | 9.8   | 11    | 16   | 28   | 19   | 6.1  | 3.9   | 3.5   | 7.2   | 24      |
| 25      | 7.5   | 6.9   | 9.1  | 8.0   | 12    | 18   | 30   | 18   | 5.9  | 3.8   | 3.7   | 5.6   | 25      |
| 26      | 7.5   | 11    | 8.0  | 6.7   | 13    | 19   | 32 * | 15   | 5.7  | 3.7   | 3.5   | 3.9   | 26      |
| 27      | 7.4   | 9.7   | 7.0  | 6.7   | 12    | 18   | 36   | 14   | 5.6  | 3.7   | 3.3   | 3.7   | 27      |
| 28      | 7.7   | 8.2   | 6.2  | 6.7   | 14    | 15   | 31   | 13   | 5.6  | 3.8   | 3.2   | 3.5   | 28      |
| 29      | 7.8   | 7.4   | 5.4  | 6.7   |       | 14   | 29   | 12   | 5.5  | 3.7   | 3.2   | 3.4   | 29      |
| 30      | 7.1   | 6.7   | 5.4  | 7.0   |       | 15 * | 27   | 13   | 5.4  | 3.7   | 3.2   | 3.4   | 30      |
| 31      | 7.4   |       | 5.4  | 6.7   |       | 17   |      | 15   |      | 3.6   | 3.3   |       | 31      |
| MEAN    | 7.9   | 8.0   | 11.0 | 10.8  | 9.7   | 13.8 | 25.9 | 19.2 | 7.9  | 4.4   | 3.4   | 4.0   | MEAN    |
| MAX.    | 9.9   | 11    | 32   | 27    | 14    | 19   | 36   | 26   | 13   | 5.6   | 3.7   | 7.2   | MAX.    |
| MIN.    | 7.1   | 6.7   | 5.4  | 5.4   | 6.4   | 9.5  | 15   | 12   | 5.4  | 3.6   | 3.2   | 3.4   | MIN.    |
| AC. FT. | 488   | 473   | 676  | 575   | 541   | 847  | 1541 | 1182 | 472  | 271   | 210   | 236   | AC. FT. |

WATER YEAR SUMMARY

E - ESTIMATED  
NR - NO RECORD  
\* - DISCHARGE MEASUREMENT OR  
OBSERVATION OF NO FLOW  
# - E AND \*

| MEAN      | MAXIMUM   |          |     |     |      | MINIMUM   |          |     |     |      | TOTAL     |
|-----------|-----------|----------|-----|-----|------|-----------|----------|-----|-----|------|-----------|
| DISCHARGE | DISCHARGE | GAGE HT. | MO. | DAY | TIME | DISCHARGE | GAGE HT. | MO. | DAY | TIME | ACRE FEET |
| 10.4      | 53        | 1.78     | 12  | 18  | 2015 | 2.7       | 0.62     | 2   | 19  | 1015 | 7512      |

| LOCATION                                                                                                                                                                                                     |           |                               | MAXIMUM DISCHARGE |          |          | PERIOD OF RECORD                            |                                             | DATUM OF GAGE |      |                    |               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------|-------------------|----------|----------|---------------------------------------------|---------------------------------------------|---------------|------|--------------------|---------------|
| LATITUDE                                                                                                                                                                                                     | LONGITUDE | 1/4 SEC. T. & R.<br>M.D.B.&M. | OF RECORD         |          |          | DISCHARGE                                   | GAGE HEIGHT<br>ONLY                         | PERIOD        |      | ZERO<br>ON<br>GAGE | REF.<br>DATUM |
|                                                                                                                                                                                                              |           |                               | CFS               | GAGE HT. | DATE     |                                             |                                             | FROM          | TO   |                    |               |
| 41 45 11                                                                                                                                                                                                     | 122 17 58 | NW15 45N 4W                   | 5910 E            | 10.66    | 12/22/64 | 28-NOV 51 8<br>APR 52-APR 55<br>SEP 56-DATE | 28-NOV 51 8<br>APR 52-APR 55<br>SEP 56-DATE | 1956          | 1964 | 0.00               | LOCAL         |
| Station located S of Bell Mountain Road, 12 mi. NE of Montague, 16 mi. SW of Macdoel. Stage-discharge relationship affected by ice at times.<br>Drainage area is 48.2 sq. mi.<br>8 - Irrigation season only. |           |                               |                   |          |          |                                             |                                             |               |      |                    |               |



**TABLE B-3 (CONT.)**  
**DAILY MEAN DISCHARGE**  
 (IN CUBIC FEET PER SECOND)

| WATER YEAR | STATION NO. | STATION NAME                         |
|------------|-------------|--------------------------------------|
| 1973       | F42100      | NORTH FORK TRINITY RIVER NEAR HELENA |

| DAY    | OCT. | NOV.  | DEC.  | JAN.   | FEB.  | MAR.  | APR.  | MAY   | JUNE  | JULY | AUG. | SEPT. | DAY     |
|--------|------|-------|-------|--------|-------|-------|-------|-------|-------|------|------|-------|---------|
| 1      | 39   | 45 *  | 165   | 353    | 377   | 891   | 458   | 601   | 415   | 113  | 31   | 23    | 1       |
| 2      | 36   | 59    | 156   | 326    | 364   | 786   | 445   | 616   | 332   | 101  | 30   | 23    | 2       |
| 3      | 33   | 126   | 177   | 293    | 358   | 712   | 439   | 617   | 310   | 98   | 29   | 23    | 3       |
| 4      | 31   | 389   | 165   | 263 *  | 418   | 627   | 450   | 584   | 270 * | 99   | 27   | 23 *  | 4       |
| 5      | 30   | 235   | 142 * | 244    | 726   | 569 * | 522   | 510   | 280   | 103  | 26   | 22    | 5       |
| 6      | 29   | 150   | 146   | 230    | 717   | 595   | 650   | 511   | 308   | 97   | 25   | 22    | 6       |
| 7      | 29   | 205   | 137   | 214    | 648   | 590   | 721   | 523   | 316   | 90   | 24   | 22    | 7       |
| 8      | 28   | 168   | 87    | 209    | 594   | 573   | 713   | 505   | 320   | 85   | 24   | 22    | 8       |
| 9      | 38   | 178   | 120   | 220    | 580   | 550   | 766 * | 513   | 304   | 81   | 24   | 22    | 9       |
| 10     | 61 * | 199   | 116   | 224    | 690   | 604   | 802   | 506   | 261   | 78 * | 24   | 22    | 10      |
| 11     | 154  | 231   | 115   | 508    | 684   | 645   | 861   | 529   | 250   | 80   | 26   | 22    | 11      |
| 12     | 104  | 194   | 162   | 1360   | 620   | 585   | 851   | 608   | 244   | 94   | 29   | 22    | 12      |
| 13     | 90   | 200   | 144   | 2470   | 548   | 534   | 799   | 730   | 221   | 86   | 28   | 22    | 13      |
| 14     | 90   | 242   | 116   | 1630   | 527   | 485   | 688   | 868   | 187   | 77   | 27   | 21    | 14      |
| 15     | 105  | 215   | 115   | 1380 * | 500   | 457   | 632   | 874   | 160   | 70   | 26   | 21    | 15      |
| 16     | 147  | 280   | 178   | 2900   | 474   | 455   | 610   | 857   | 152   | 66   | 26   | 21    | 16      |
| 17     | 122  | 249   | 1240  | 1950   | 462   | 442   | 623   | 862 * | 144   | 67   | 26   | 21    | 17      |
| 18     | 103  | 217   | 1620  | 1610   | 445   | 421   | 547 * | 822   | 134   | 72   | 25   | 21    | 18      |
| 19     | 88   | 238   | 2090  | 1290   | 431   | 434   | 485   | 701   | 141   | 69   | 25   | 35    | 19      |
| 20     | 76   | 242   | 1570  | 1000   | 416   | 443   | 447   | 576   | 160   | 81   | 24   | 76    | 20      |
| 21     | 66   | 216   | 1690  | 831    | 408   | 450   | 430   | 514   | 183   | 65   | 23   | 43    | 21      |
| 22     | 64   | 209   | 2500  | 703    | 404   | 437   | 459   | 500   | 185   | 57   | 23   | 46    | 22      |
| 23     | 60   | 196   | 1580  | 626 *  | 394   | 444   | 545   | 483   | 163   | 52   | 23   | 195   | 23      |
| 24     | 57   | 182   | 1250  | 581    | 557   | 457   | 589   | 593   | 139   | 46   | 24   | 198   | 24      |
| 25     | 52   | 165   | 945   | 531    | 838   | 476   | 666   | 503   | 146   | 41   | 26   | 138   | 25      |
| 26     | 48   | 198   | 733   | 482    | 1030  | 505   | 855   | 381   | 174   | 38   | 25   | 79    | 26      |
| 27     | 46   | 270   | 650   | 451    | 1160  | 521   | 934   | 345   | 166   | 38   | 23   | 57    | 27      |
| 28     | 44   | 211   | 571   | 425    | 955   | 494   | 874   | 381   | 156   | 37   | 23   | 46    | 28      |
| 29     | 43   | 194   | 499   | 415    |       | 466   | 771   | 403   | 151   | 36   | 23   | 40    | 29      |
| 30     | 40   | 176   | 444   | 403    |       | 490   | 650   | 455   | 135   | 35   | 23   | 36    | 30      |
| 31     | 39   |       | 395   | 397    |       | 477   |       | 465   |       | 32   | 23   |       | 31      |
| MEAN   | 64.3 | 203   | 646   | 791    | 583   | 536   | 643   | 579   | 217   | 70.5 | 25.3 | 46.1  | MEAN    |
| MAX.   | 154  | 389   | 2500  | 2900   | 1160  | 891   | 934   | 874   | 415   | 113  | 31   | 198   | MAX.    |
| MIN.   | 28   | 45    | 87    | 209    | 358   | 421   | 430   | 345   | 134   | 32   | 23   | 21    | MIN.    |
| C. FT. | 3951 | 12060 | 39710 | 48630  | 32380 | 32960 | 38250 | 35580 | 12910 | 4332 | 1557 | 2745  | AC. FT. |

WATER YEAR SUMMARY

- ESTIMATED  
 - NO RECORD  
 - DISCHARGE MEASUREMENT OR  
 OBSERVATION OF NO FLOW  
 - E AND \*

| MEAN      | MAXIMUM   |          |     |     |      | MINIMUM   |          |     |     |      | TOTAL     |
|-----------|-----------|----------|-----|-----|------|-----------|----------|-----|-----|------|-----------|
| DISCHARGE | DISCHARGE | GAGE HT. | MO. | DAY | TIME | DISCHARGE | GAGE HT. | MO. | DAY | TIME | ACRE FEET |
| 366       | 3590      | 12.99    | 1   | 16  | 0945 | 21        | 5.59     | 9   | 14  | 0030 | 265,065   |

| LOCATION |           |                               | MAXIMUM DISCHARGE |          |          | PERIOD OF RECORD |                     | DATUM OF GAGE |    |                    |               |
|----------|-----------|-------------------------------|-------------------|----------|----------|------------------|---------------------|---------------|----|--------------------|---------------|
| LATITUDE | LONGITUDE | 1/4 SEC. T. & R.<br>M.D.B.&M. | OF RECORD         |          |          | DISCHARGE        | GAGE HEIGHT<br>ONLY | PERIOD        |    | ZERO<br>ON<br>GAGE | REF.<br>DATUM |
|          |           |                               | CFS               | GAGE HT. | DATE     |                  |                     | FROM          | TO |                    |               |
| 40 46 55 | 123 07 40 | SW21 34N 11W                  | 35800             | 27.93    | 12/22/64 | JAN 57-DATE      | JAN 57-DATE         | 1957          |    | 0.00               | LOCAL         |

Station located 1.0 mi. above mouth, 0.6 mi. N of Helena. Stage-discharge relationship affected by ice at times. Drainage area is 151 sq. mi.



GROUND WATER BASINS, WATER LEVEL MEASUREMENTS

## APPENDIX C

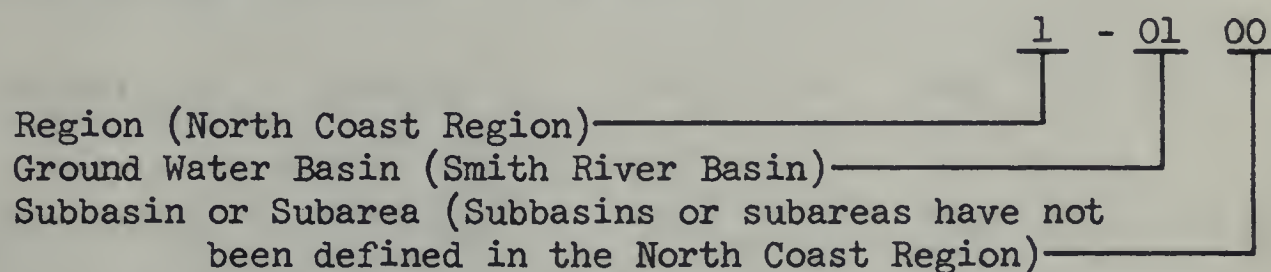
### GROUND WATER MEASUREMENTS

This appendix contains ground water level measurements from 53 wells for the period October 1, 1972 through September 30, 1973. It also contains a table which summarizes the measurements. Wells in the network are continuously reviewed and, when conditions dictate, replacement wells are located and measured.

There are nine ground water basins in the North Coastal Region for which data are reported.

Two numbering systems are used by the Department to facilitate the processing of water level measurement data. The two systems are the Region and Basin Designation and the State Well Numbering System as described below.

The regions are those of the California Regional Water Quality Control Boards whose geographic areas are defined in Section 13200 of the Water Code. That portion of Northern California covered by this report is included in the North Coast Region. A decimal system of the form 0-00.00 has been selected according to geographic regions, ground water basins, and subbasins or subareas as follows:



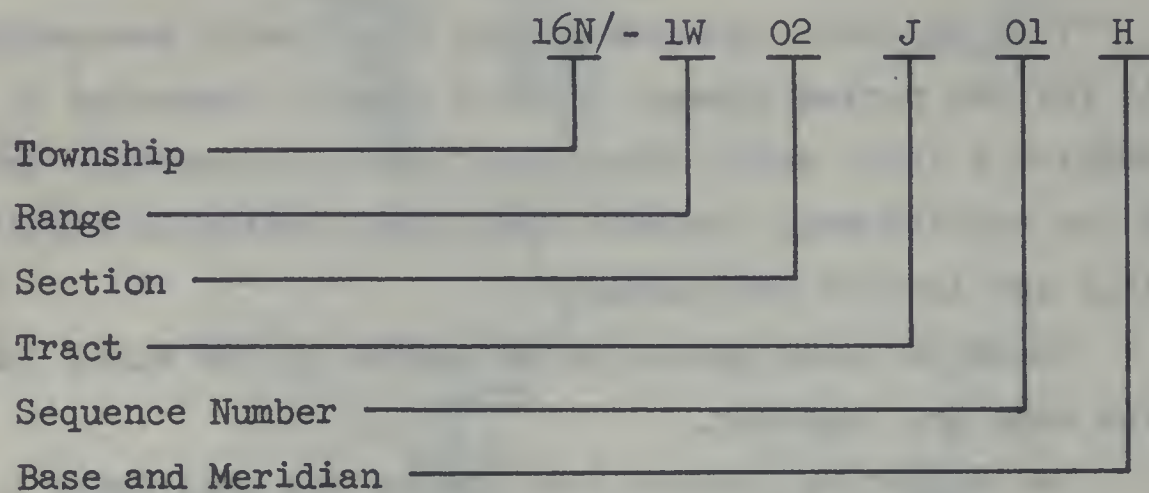
The State Well Numbering System is based on township, range, and section subdivisions of the Public Land Survey.

A section is divided into 40-acre tracts as follows:

|   |   |   |   |
|---|---|---|---|
| D | C | B | A |
| E | F | G | H |
| M | L | K | J |
| N | P | Q | R |

Sequence numbers in a tract are generally assigned in chronological order.

The number of a well, assigned in accordance with this system, is referred to as the State Well Number, as illustrated below:



This number identifies and locates the well. In the example, the well is in Township 16 North, Range 1 West, Tract J of Section 2, located in the Humboldt Base and Meridian.

TABLE C-1

AVERAGE CHANGE OF GROUND WATER LEVELS  
AND SUMMARY OF WELL MEASUREMENTS REPORTED  
NORTH COASTAL AREA

| Ground Water Basin |        | Average<br>Change<br>Spring 1972<br>to<br>Spring 1973<br>in feet | Measuring<br>Agency | Number of<br>Wells Reported |                |
|--------------------|--------|------------------------------------------------------------------|---------------------|-----------------------------|----------------|
| Name               | Number |                                                                  |                     | Fall<br>1972                | Spring<br>1973 |

## NORTH COASTAL REGION

|                    |         |      |     |    |    |
|--------------------|---------|------|-----|----|----|
| Smith River Plain  | 1-01.00 | -1.7 | DWR | 5  | 5  |
| Butte Valley       | 1-03.00 | -1.5 | DWR | 15 | 15 |
| Shasta Valley      | 1-04.00 | +3.5 | DWR | 7  | 7  |
| Scott River Valley | 1-05.00 | -1.6 | DWR | 5  | 5  |
| Mad River Valley   | 1-08.00 | -0.7 | DWR | 2  | 2  |
| Eel River Valley   | 1-10.00 | -0.5 | DWR | 4  | 4  |
| Round Valley       | 1-11.00 | +0.5 | DWR | 5  | 5  |
| Laytonville Valley | 1-12.00 | +0.9 | DWR | 4  | 4  |
| Little Lake Valley | 1-13.00 | 0.0  | DWR | 5  | 5  |

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DWR - Department of Water Resources

## TABLE C-2 GROUND WATER LEVELS AT WELLS

An explanation of the column headings and the code symbols follows:

State Well Number - Refer to the explanation presented on page 17.

Ground Surface Elevation - The numbers in this column are the elevation in feet above mean sea level (USGS datum) of the ground surface at the well. Elevations are usually taken from topographic maps and the accuracy is controlled by topographic standards.

Date - The date shown in the column is the date when the depth measurement given in the next column was made.

Ground Surface to Water Surface - This is the measured depth in feet from the ground surface to the water surface in the well; some of the depth measurements in the column may be preceded by a number in parentheses to indicate a questionable measurement. The code applicable to these "questionable measurements" is as follows:

- |                                      |                                        |
|--------------------------------------|----------------------------------------|
| (1) Pumping                          | (6) Other                              |
| (2) Nearby pump operating            | (7) Recharge operation at or near well |
| (3) Casing leaking or wet            | (8) Oil in casing                      |
| (4) Pumped recently                  | (9) Caved or deepened                  |
| (5) Air or pressure gage measurement |                                        |

When a measurement was attempted, but could not be obtained, then only a number in parentheses is shown in the column. The code applicable to these "no measurements" is as follows:

- |                               |                               |
|-------------------------------|-------------------------------|
| (1) Pumping                   | (6) Well has been destroyed   |
| (2) Pump house locked         | (7) Special                   |
| (3) Tape hung up              | (8) Casing leaking or wet     |
| (4) Cannot get tape in casing | (9) Temporarily inaccessible  |
| (5) Unable to locate well     | (0) Measurements discontinued |

The words FLOW and DRY are shown in this column to indicate a flowing or dry well, respectively. A minus sign preceding the number in this column indicates that the static water level in the well is this distance in feet above the ground surface.

Water Surface Elevation - This is the elevation in feet above mean sea level (USGS datum) of the water surface in the well. It was derived by subtraction of the depth measurement from the ground surface elevation.

Agency Supplying Data - Each of these numbers is the code number for the agency supplying data for that measurement. The Department of Water Resources is the sole agency supplying ground water level measurement data for this report. It has been assigned an agency code number of 5050.

TABLE C-2

## GROUND WATER LEVELS AT WELLS

## NORTH COASTAL AREA

| STATE WELL NUMBER         | GROUND SURFACE ELEVATION IN FEET | DATE                | GROUND SURFACE TO WATER SURFACE IN FEET | WATER SURFACE ELEVATION IN FEET | AGENCY SUPPLYING DATA | STATE WELL NUMBER          | GROUND SURFACE ELEVATION IN FEET | DATE                | GROUND SURFACE TO WATER SURFACE IN FEET | WATER SURFACE ELEVATION IN FEET | AGENCY SUPPLYING DATA |
|---------------------------|----------------------------------|---------------------|-----------------------------------------|---------------------------------|-----------------------|----------------------------|----------------------------------|---------------------|-----------------------------------------|---------------------------------|-----------------------|
| SMITH RIVER PLAIN 1-01.00 |                                  |                     |                                         |                                 |                       | SCOTT RIVER VALLEY 1-05.00 |                                  |                     |                                         |                                 |                       |
| 16N/01W-02J01 H           | 127.0                            | 10-11-72<br>4-10-73 | 22.2<br>16.9                            | 104.8<br>110.1                  | 5050<br>5050          | 42N/09W-02A02 M            | 2746.0                           | 10-03-72<br>4-20-73 | 12.5<br>6.0                             | 2733.5<br>2740.0                | 5050<br>5050          |
| 16N/01W-17K01 H           | 48.0                             | 10-11-72<br>4-10-73 | 21.3<br>14.2                            | 26.7<br>33.8                    | 5050<br>5050          | 42N/09W-27N01 M            | 2930.0                           | 10-03-72<br>4-20-73 | 6.9<br>2.2                              | 2923.1<br>2927.8                | 5050<br>5050          |
| 17N/01W-02P01 H           | 31.0                             | 10-11-72<br>4-10-73 | 20.7<br>16.5                            | 10.3<br>14.5                    | 5050<br>5050          | 43N/09W-23F01 M            | 2728.0                           | 10-03-72<br>4-20-73 | 6.0<br>4.2                              | 2722.0<br>2723.8                | 5050<br>5050          |
| 17N/01W-03E01 H           | 14.0                             | 10-11-72<br>4-10-73 | 13.0<br>9.9                             | 1.0<br>4.1                      | 5050<br>5050          | 43N/09W-24F01 M            | 2735.0                           | 10-03-72<br>4-20-73 | 9.2<br>5.7                              | 2725.8<br>2729.3                | 5050<br>5050          |
| 17N/01W-15M02 H           | 21.0                             | 10-11-72<br>4-10-73 | 16.4<br>8.2                             | 4.6<br>12.8                     | 5050<br>5050          | 44N/09W-28P01 M            | 2711.0                           | 10-03-72<br>4-20-73 | 21.7<br>13.7                            | 2689.3<br>2697.3                | 5050<br>5050          |
| BUTTE VALLEY 1-03.00      |                                  |                     |                                         |                                 |                       | MAD RIVER VALLEY 1-08.00   |                                  |                     |                                         |                                 |                       |
| 45N/01W-06A01 M           | 4258.0                           | 10-04-72<br>4-19-73 | 33.8<br>29.6                            | 4224.2<br>4228.4                | 5050<br>5050          | 06N/01E-06H01 H            | 151.0                            | 10-11-72<br>4-11-73 | 11.8<br>(0)                             | 139.2                           | 5050<br>5050          |
| 45N/02W-11P01 M           | 4275.0                           | 10-03-72<br>4-19-73 | 46.1<br>53.7                            | 4228.9<br>4221.3                | 5050<br>5050          | 06N/01E-29P01 H            | 25.0                             | 10-11-72<br>4-11-73 | (9)<br>9.6                              | 15.4                            | 5050<br>5050          |
| 46N/01E-06N01 M           | 4242.0                           | 10-04-72<br>4-19-73 | 26.3<br>20.5                            | 4215.7<br>4221.5                | 5050<br>5050          | EEL RIVER VALLEY 1-10.00   |                                  |                     |                                         |                                 |                       |
| 46N/01W-17B01 M           | 4246.0                           | 10-04-72<br>4-19-73 | 43.1<br>31.0                            | 4202.9<br>4215.0                | 5050<br>5050          | 02N/01W-08B01 H            | 34.0                             | 10-10-72<br>4-11-73 | 22.3<br>14.8                            | 11.7<br>19.2                    | 5050<br>5050          |
| 46N/01W-18Q01 M           | 4247.0                           | 10-04-72<br>4-19-73 | 23.0<br>18.6                            | 4224.0<br>4228.4                | 5050<br>5050          | 03N/01W-18D01 H            | 15.0                             | 10-10-72<br>4-11-73 | 5.0<br>3.0                              | 10.0<br>12.0                    | 5050<br>5050          |
| 46N/02W-25R02 M           | 4256.0                           | 10-03-72<br>4-19-73 | 32.1<br>27.8                            | 4223.9<br>4228.2                | 5050<br>5050          | 03N/01W-34J01 H            | 53.0                             | 10-10-72<br>4-11-73 | 35.1<br>31.8                            | 17.9<br>21.2                    | 5050<br>5050          |
| 46N/02W-26Q01 M           | 4254.0                           | 10-04-72<br>4-19-73 | 15.4<br>13.7                            | 4238.6<br>4240.3                | 5050<br>5050          | 03N/02W-26R01 H            | 12.0                             | 10-10-72<br>4-11-73 | 10.3<br>5.7                             | 1.7<br>6.3                      | 5050<br>5050          |
| 47N/01E-06A02 M           | 4244.5                           | 10-04-72<br>4-19-73 | 32.5<br>NM (1)                          | 4212.0                          | 5050<br>5050          | ROUND VALLEY 1-11.00       |                                  |                     |                                         |                                 |                       |
| 47N/01E-20D01 M           | 4240.0                           | 10-04-72<br>4-19-73 | 26.2<br>22.2                            | 4213.8<br>4217.8                | 5050<br>5050          | 22N/12W-04B01 M            | 1351.0                           | 10-12-72<br>4-12-73 | 15.4<br>6.2                             | 1335.6<br>1344.8                | 5050<br>5050          |
| 47N/01W-04D01 M           | 4241.5                           | 10-04-72<br>4-19-73 | 6.3<br>6.2                              | 4235.2<br>4235.3                | 5050<br>5050          | 22N/12W-06L03 M            | 1370.0                           | 10-12-72<br>4-12-73 | 1.6<br>-11.2                            | 1368.4<br>1381.2                | 5050<br>5050          |
| 47N/01W-04D02 M           | 4241.5                           | 10-04-72<br>4-19-73 | 6.5<br>6.4                              | 4235.0<br>4235.1                | 5050<br>5050          | 22N/13W-12R01 M            | 1400.0                           | 10-12-72<br>4-12-73 | 28.1<br>6.2                             | 1371.9<br>1393.8                | 5050<br>5050          |
| 47N/01W-19L01 M           | 4238.0                           | 10-04-72<br>4-19-73 | 4.5<br>5.3                              | 4233.5<br>4232.7                | 5050<br>5050          | 23N/13W-36C03 M            | 1410.0                           | 10-12-72<br>4-12-73 | 29.6<br>8.7                             | 1380.4<br>1401.3                | 5050<br>5050          |
| 47N/01W-27B01 M           | 4233.0                           | 10-04-72<br>4-19-73 | 8.0<br>8.2                              | 4225.0<br>4224.8                | 5050<br>5050          | 23N/13W-36Q01 M            | 1403.0                           | 10-12-72<br>4-12-73 | 20.7<br>1.1                             | 1382.3<br>1401.9                | 5050<br>5050          |
| 47N/01W-34Q01 M           | 4237.0                           | 10-04-72<br>4-19-73 | 19.3<br>16.3                            | 4217.7<br>4220.7                | 5050<br>5050          | LAYTONVILLE VALLEY 1-12.00 |                                  |                     |                                         |                                 |                       |
| 48N/01W-26N01 M           | 4244.0                           | 10-06-72<br>4-19-73 | 20.3<br>24.8                            | 4223.7<br>4219.2                | 5001<br>5050          | 21N/14W-30M01 M            | 1688.0                           | 10-11-72<br>4-12-73 | 16.4<br>4.3                             | 1671.6<br>1683.7                | 5050<br>5050          |
| SHASTA VALLEY 1-04.00     |                                  |                     |                                         |                                 |                       | 21N/15W-01L02 M            | 1682.0                           | 10-11-72<br>4-12-73 | 23.7<br>7.2                             | 1658.3<br>1674.8                | 5050<br>5050          |
| 42N/05W-20J01 M           | 2882.0                           | 10-03-72<br>4-20-73 | 2.0<br>5.7                              | 2880.0<br>2876.3                | 5050<br>5050          | 21N/15W-12M02 M            | 1630.0                           | 10-11-72<br>4-12-73 | 17.3<br>4.7                             | 1612.7<br>1625.3                | 5050<br>5050          |
| 42N/06W-10J01 M           | 2835.0                           | 10-03-72<br>4-20-73 | 12.3<br>2.3                             | 2822.7<br>2832.7                | 5050<br>5050          | 21N/15W-24A01 M            | 1653.0                           | 10-11-72<br>4-12-73 | 12.3<br>2.5                             | 1640.7<br>1650.5                | 5050<br>5050          |
| 43N/05W-11A01 M           | 2740.0                           | 10-03-72<br>4-19-73 | 126.9<br>126.8                          | 2613.1<br>2613.2                | 5050<br>5050          | LITTLE LAKE VALLEY 1-13.00 |                                  |                     |                                         |                                 |                       |
| 43N/06W-15F03 M           | 2663.0                           | 10-03-72<br>4-20-73 | 9.4<br>8.4                              | 2653.6<br>2654.6                | 5050<br>5050          | 18N/13W-08L01 M            | 1340.0                           | 10-12-72<br>4-13-73 | 8.6<br>1.8                              | 1331.4<br>1338.2                | 5050<br>5050          |
| 43N/06W-22A01 M           | 2665.0                           | 10-03-72<br>4-20-73 | 13.6<br>(2)15.5                         | 2651.4<br>2649.5                | 5050<br>5050          | 18N/13W-17J01 M            | 1370.0                           | 10-12-72<br>4-13-73 | 22.9<br>19.4                            | 1347.1<br>1350.6                | 5050<br>5050          |
| 44N/05W-34H01 M           | 2637.0                           | 10-03-72<br>4-19-73 | 26.0<br>29.0                            | 2611.0<br>2608.0                | 5050<br>5050          | 18N/13W-18E01 M            | 1365.0                           | 10-12-72<br>4-13-73 | 25.9<br>18.4                            | 1339.1<br>1346.6                | 5050<br>5050          |
| 44N/06W-10F01 M           | 2537.0                           | 10-03-72<br>4-20-73 | 16.5<br>27.0                            | 2520.5<br>2510.0                | 5050<br>5050          | 19N/13W-32F01 M            | 1347.0                           | 10-12-72<br>4-13-73 | 14.2<br>4.8                             | 1332.8<br>1342.2                | 5050<br>5050          |
| 45N/06W-19E01 M           | 2538.0                           | 10-03-72<br>4-20-73 | 25.5<br>19.2                            | 2512.5<br>2518.8                | 5050<br>5050          | 19N/13W-32L02 M            | 1350.0                           | 10-12-72<br>4-13-73 | 12.5<br>6.7                             | 1337.5<br>1343.3                | 5050<br>5050          |



## SURFACE WATER SAMPLING STATIONS

## APPENDIX D

### SURFACE WATER QUALITY

This appendix presents surface water quality data collected during the period from October 1, 1972, through September 30, 1973. The data were collected from 26 stream stations in the North Coastal area.

At the time of field sampling, dissolved oxygen, pH, and temperature measurements are made and gage height and time are noted. Comments on local conditions are noted in field books which are available in the files of the Department of Water Resources. The mineral constituents were determined in accordance with methods described in "Standard Methods for the Examination of Water and Waste Water", prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, 13th Edition, 1971.

Each station in this appendix has been assigned a station number. The numbering system is described in Appendix B, "Surface Water Measurements". For reference purposes, the original station number is given in parentheses following each station name.



TABLE D-1  
SAMPLING STATION DATA AND INDEX  
North Coastal Area

| Station                                    | Station Number | Location*    | Beginning of Record | Frequency of Sampling | Analyses on Page   |
|--------------------------------------------|----------------|--------------|---------------------|-----------------------|--------------------|
| BEAR RIVER AT CAPETOWN                     | F75100.00      | 01N/03W-13 H | MAY 1964            | Semiannually          | 36                 |
| BLACK BUTTE RIVER NEAR COVELO              | F63200.00      | 23N/11W-28 M | NOV. 1964           | Monthly               | 34, 35             |
| EEL RIVER ABOVE OUTLET CREEK               | F61329.50      | 21N/13W-32 M | APR. 1958           | Monthly               | 32, 33, 45         |
| EEL RIVER AT SCOTIA                        | F61100.00      | 01N/01E-05 H | APR. 1951           | Monthly               | 31, 32, 37, 39, 43 |
| EEL RIVER AT SOUTH FORK                    | F61154.50      | 01S/02E-26 H | APR. 1951           | Monthly               | 32                 |
| EEL RIVER, MIDDLE FORK, AT DOS RIOS        | F63009.01      | 21N/13W-06 M | APR. 1958           | Monthly               | 33, 34, 45         |
| EEL RIVER, SOUTH FORK, NEAR MIRANDA        | F64100.00      | 03S/04E-30 H | APR. 1951           | Monthly               | 35                 |
| KLAMATH RIVER ABOVE HAMBURG RESERVOIR SITE | F31470.00      | 46N/10W-14 M | DEC. 1958           | Bimonthly             | 29, 37, 41, 43     |
| KLAMATH RIVER AT ORLEANS                   | F31220.01      | 11N/06E-31 H | JAN. 1964           | Monthly               | 28                 |
| KLAMATH RIVER BELOW IRON GATE DAM          | F31599.01      | 47N/05W-20 M | DEC. 1961           | Monthly               | 29, 30, 37, 41, 43 |
| KLAMATH RIVER NEAR KLAMATH                 | F31100.00      | 13N/02E-19 H | APR. 1951           | Monthly               | 28, 37, 39, 43     |
| KLAMATH RIVER NEAR SELAD VALLEY            | F31430.00      | 46N/12W-03 M | DEC. 1958           | Monthly               | 28, 29, 37, 41, 43 |
| MAD RIVER NEAR ARCATA                      | F51100.00      | 06N/01E-15 H | NOV. 1958           | Bimonthly             | 31                 |
| MATTOLE RIVER NEAR PETROLIA                | F71100.00      | 02S/02W-11 H | JAN. 1959           | Semiannually          | 35                 |
| MILL CREEK NEAR COVELO                     | F63050.00      | 22N/12W-22 M | FEB. 1965           | Monthly               | 34, 45             |
| OUTLET CREEK NEAR LONGVALE                 | F61350.00      | 20N/14W-01 M | MAY 1958            | Monthly               | 33                 |
| REDWOOD CREEK AT ORICK                     | F55100.00      | 10N/01E-04 H | NOV. 1958           | Monthly               | 31                 |
| SALMON RIVER AT SOMESBAR                   | F34100.00      | 11N/06E-03 H | NOV. 1958           | Semiannually          | 30                 |
| SCOTT RIVER NEAR FORT JONES                | F25250.00      | 44N/10W-28 M | DEC. 1958           | Bimonthly             | 27, 37, 41, 43     |
| SHASTA RIVER NEAR YREKA                    | F21050.00      | 46N/07W-24 M | DEC. 1958           | Bimonthly             | 27, 37, 41, 43     |
| SMITH RIVER NEAR CRESCENT CITY             | F01300.00      | 16N/01E-10 H | APR. 1951           | Monthly               | 27                 |
| TRINITY RIVER AT HOOPA                     | F41080.00      | 08N/04E-25 H | APR. 1951           | Monthly               | 30, 43             |
| TRINITY RIVER AT LEWISTON                  | F41640.00      | 33N/08W-17 M | APR. 1951           | Bimonthly             | 30, 31, 37, 43     |
| TRINITY RIVER NEAR BURNT RANCH             | F41376.00      | 05N/07E-19 H | APR. 1958           | Bimonthly             | 30, 43             |
| VAN DUZEN RIVER NEAR BRIDGEVILLE           | F65279.00      | 01N/02E-12 H | APR. 1958           | Monthly               | 35                 |

\* F = Humboldt Base and Meridian  
M = Mount Diablo Base and Meridian

TABLE D-2 MINERAL ANALYSES OF SURFACE WATER

Lab and Sampler Agency Codes

5000 - U. S. Geological Survey

5050 - Department of Water Resources

Abbreviations

|                          |                                                                                                                                                                                                                                                                                                                               |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>TIME</u>              | - Pacific Standard Time on a 24-hour clock.                                                                                                                                                                                                                                                                                   |
| <u>G.H.</u>              | - Instantaneous gage height in feet above an established datum.                                                                                                                                                                                                                                                               |
| <u>Q</u>                 | - Instantaneous discharge measured in cubic feet per second (cfs). "E" indicates the value has been estimated.                                                                                                                                                                                                                |
| <u>DEPTH</u>             | - Depth at which sample was collected.                                                                                                                                                                                                                                                                                        |
| <u>DO</u>                | - Dissolved oxygen content in milligrams per liter.                                                                                                                                                                                                                                                                           |
| <u>SAT</u>               | - Percent of normal dissolved oxygen saturation.                                                                                                                                                                                                                                                                              |
| <u>TEMP</u>              | - Water temperature in degrees Fahrenheit (F) and Celsius (C).                                                                                                                                                                                                                                                                |
| <u>PH</u>                | - Measure of acidity or alkalinity of water.                                                                                                                                                                                                                                                                                  |
| <u>EC</u>                | - Electrical conductance in micromhos at 25° C.                                                                                                                                                                                                                                                                               |
| <u>TDS</u>               | - Gravimetric determination of total dissolved solids at 180° C.                                                                                                                                                                                                                                                              |
| <u>SUM</u>               | - Total dissolved solids by summation of analyzed constituents.                                                                                                                                                                                                                                                               |
| <u>TH</u>                | - Total hardness.                                                                                                                                                                                                                                                                                                             |
| <u>NCH</u>               | - Noncarbonate hardness - any excess of total hardness over total alkalinity.                                                                                                                                                                                                                                                 |
| <u>TURB</u>              | - Jackson Turbidity Units measured with a Hellige Turbidimeter (E) or a Hach Nephelometer (A). Field determination (F).                                                                                                                                                                                                       |
| <u>SAR</u>               | - Sodium adsorption ratio.                                                                                                                                                                                                                                                                                                    |
| <u>PERCENT REACTANCE</u> |                                                                                                                                                                                                                                                                                                                               |
| <u>VALUE</u>             | - Determined by dividing the sum of the cations or anions in milliequivalents per liter into each constituent in milliequivalents per liter arriving at a percentage. For a partial analysis, an approximate value is determined by multiplying the electrical conductance by 0.01 and using that as the cation or anion sum. |

Mineral Constituents

|                  |               |                  |             |
|------------------|---------------|------------------|-------------|
| B                | - Boron       | K                | - Potassium |
| CA               | - Calcium     | MG               | - Magnesium |
| CL               | - Chloride    | NA               | - Sodium    |
| CO <sub>3</sub>  | - Carbonate   | NO <sub>3</sub>  | - Nitrate   |
| F                | - Fluoride    | SiO <sub>2</sub> | - Silica    |
| HCO <sub>3</sub> | - Bicarbonate | SO <sub>4</sub>  | - Sulfate   |

TABLE D-2  
MINERAL ANALYSES OF SURFACE WATER

| DATE<br>TIME                              | SAMPLER<br>LAB | G.H.<br>O<br>DEPTH | DO<br>SAT | TEMP  | FIELD<br>LABORATORY<br>PH EC | MINERAL CONSTITUENTS IN |      |      |      | MILLIGRAMS PER LITER<br>MILLIEQUIVALENTS PER LITER |      |      |     |      | MILLIGRAMS PER LITER |          |            |           |             |         |
|-------------------------------------------|----------------|--------------------|-----------|-------|------------------------------|-------------------------|------|------|------|----------------------------------------------------|------|------|-----|------|----------------------|----------|------------|-----------|-------------|---------|
|                                           |                |                    |           |       |                              | CA                      | MG   | NA   | K    | CO3                                                | HCO3 | SO4  | CL  | NO3  | 8<br>SI02            | F<br>SUM | TDS<br>SUM | TH<br>NCH | TURB<br>SAR |         |
|                                           |                |                    |           |       |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             | PERCENT |
| FO 1300.00 SMITH RIVER NEAR CRESCENT CITY |                |                    |           |       |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 10/03/72                                  | 5050           | 7.97               | 9.0       | 59.0F | 7.5                          | 164                     | --   | --   | 3.0  | --                                                 | 0    | 89   | --  | 4.8  | --                   | .00      | --         | 78        | 0A          |         |
| 0715                                      | 5050           | 228                | 89        | 15.0C | 7.8                          | 163                     |      |      | .13  |                                                    | .00  | 1.46 |     | .14  |                      | --       | --         | 0.1       |             |         |
|                                           |                |                    |           |       |                              |                         |      |      | 8    |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 11/14/72                                  | 5050           | 9.53               | 11.5      | 48.2F | 7.5                          | 117                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 1AF       |             |         |
| 0845                                      | 5050           | 1100               | 99        | 9.0C  |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 12/05/72                                  | 5050           | 10.61              | 12.9      | 41.0F | 8.0                          | 106                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 1AF       |             |         |
| 0815                                      | 5050           | 1970               | 101       | 5.0C  |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 01/17/73                                  | 5050           | 18.43              | 12.4      | 45.5F | 7.3                          | 78                      | --   | --   | 1.8  | --                                                 | 0    | 43   | --  | 4.6  | --                   | .00      | --         | 39        | 75A         |         |
| 0815                                      | 5050           | 17300              | 103       | 7.5C  | 7.4                          | 78                      |      |      | .08  |                                                    | .00  | .70  |     | .13  |                      | --       | --         | 0.1       |             |         |
|                                           |                |                    |           |       |                              |                         |      |      | 9    |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 02/05/73                                  | 5050           | 14.06              | 12.1      | 47.3F | 7.3                          | 84                      | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 17AF      |             |         |
| 1600                                      | 5050           | 7010               | 103       | 8.5C  |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 03/06/73                                  | 5050           | 12.77              | 11.5      | 44.6F | 7.6                          | 87                      | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 5AF       |             |         |
| 0750                                      | 5050           | 4320               | 95        | 7.0C  |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 04/02/73                                  | 5050           | 12.45              | 11.7      | 47.3F | 7.4                          | 89                      | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 2AF       |             |         |
| 1535                                      | 5050           | 4540               | 100       | 8.5C  |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 05/23/73                                  | 5050           | 8.76               | 10.0      | 57.2F | 7.4                          | 113                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 2AF       |             |         |
| 0605                                      | 5050           | 880                | 97        | 14.0C |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 06/20/73                                  | 5050           | 8.29               | 9.9       | 60.8F | 7.8                          | 125                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 0AF       |             |         |
| 0715                                      | 5050           | 574                | 100       | 16.0C |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 07/10/73                                  | 5050           | 7.95               | 9.5       | 64.4F | 7.9                          | 143                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 0AF       |             |         |
| 0700                                      | 5050           | 360E               | 100       | 18.0C |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 08/07/73                                  | 5050           | 7.61               | 8.9       | 66.2F | 7.7                          | 154                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 0AF       |             |         |
| 0625                                      | 5050           | 269                | 96        | 19.0C |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 09/12/73                                  | 5050           | 7.45               | 10.2      | 60.8F | 7.7                          | 156                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 0AF       |             |         |
| 0710                                      | 5050           | 220                | 103       | 16.0C |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| F2 1050.00 SHASTA RIVER NEAR YREKA        |                |                    |           |       |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 11/03/72                                  | 5050           | 3.40               | 10.8      | 48.2F | 8.1                          | 483                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 2AF       |             |         |
| 0900                                      | 5050           | 175                | 100       | 9.0C  |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 01/24/73                                  | 5050           | 3.54               | 11.7      | 39.2F | 8.0                          | 500                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 8AF       |             |         |
| 0910                                      | 5050           | 235                | 95        | 4.0C  |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 03/13/73                                  | 5050           | 3.48               | 8.8       | 46.4F | 8.2                          |                         | --   | --   | 33   | --                                                 | 0    | 257  | --  | 19   | --                   | .40      | --         | 168       | 1A          |         |
| 1405                                      | 5050           | 205                | 79        | 8.0C  | 8.2                          | 460                     |      |      | 1.44 |                                                    | .00  | 4.21 |     | .54  |                      | --       | --         | 1.1       |             |         |
|                                           |                |                    |           |       |                              |                         |      |      | 30   |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 05/16/73                                  | 5050           | 3.08               | 8.5       | 64.4F | 8.1                          | 584                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 2AF       |             |         |
| 0810                                      | 5050           | 88                 | 96        | 18.0C |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 07/02/73                                  | 5050           | 2.63               | 9.5       | 73.4F | 8.4                          | 719                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 2AF       |             |         |
| 1225                                      | 5050           | 18                 | 118       | 23.0C |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 09/07/73                                  | 5050           | 2.63               | 10.2      | 59.9F | 8.2                          | 710                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 1AF       |             |         |
| 0745                                      | 5050           | 23                 | 109       | 15.5C |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 09/07/73                                  | 5050           | 2.66               | 10.8      | 64.4F | 8.3                          | 675                     | 42   | 44   | 50   | 3.6                                                | 24   | 374  | 9.9 | 37   | --                   | .60      | --         | 389       | 287         | 1A      |
| 1115                                      | 5050           |                    | 121       | 18.0C | 8.7                          | 708                     | 2.10 | 3.62 | 2.18 | .09                                                | .80  | 6.13 | .21 | 1.04 |                      | --       | 395        | 0         | 1.3         |         |
|                                           |                |                    |           |       |                              |                         | 26   | 45   | 27   | 1                                                  |      |      |     |      |                      |          |            |           |             |         |
| F2 5250.00 SCOTT RIVER NEAR FORT JONES    |                |                    |           |       |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 11/03/72                                  | 5050           | 5.02               | 10.6      | 48.2F | 7.6                          | 282                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 2AF       |             |         |
| 1215                                      | 5050           | 100E               | 100       | 9.0C  |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 01/24/73                                  | 5050           | 6.87               | 11.4      | 36.5F | 7.2                          | 206                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 12AF      |             |         |
| 1220                                      | 5050           | 752                | 91        | 2.5C  |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 03/13/73                                  | 5050           | 6.25               | 10.5      | 44.6F | 7.5                          |                         | --   | --   | 3.4  | --                                                 | 0    | 110  | --  | 1.6  | --                   | .00      | --         | 93        | 0A          |         |
| 1645                                      | 5050           | 438                | 94        | 7.0C  | 7.9                          | 187                     |      |      | .15  |                                                    | .00  | 1.80 |     | .05  |                      | --       | --         | 0.2       |             |         |
|                                           |                |                    |           |       |                              |                         |      |      | 7    |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 05/16/73                                  | 5050           | 6.78               | 9.8       | 54.0F | 7.2                          | 95                      | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 7AF       |             |         |
| 1130                                      | 5050           | 1630               | 100       | 12.2C |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 07/01/73                                  | 5050           | 5.24               | 12.5      | 71.6F | 8.1                          | 255                     | --   | --   | --   | --                                                 | --   | --   | --  | --   | --                   | --       | --         | 1AF       |             |         |
| 1500                                      | 5050           | 9A                 | 155       | 22.0C |                              |                         |      |      |      |                                                    |      |      |     |      |                      |          |            |           |             |         |
| 09/07/73                                  | 5050           | 4.73               | 12.3      | 59.9F | 8.0                          | 258                     | --   | --   | 4.6  | --                                                 | 0    | 145  | --  | 7.3  | --                   | .10      | --         | 126       | 0A          |         |
| 1020                                      | 5050           | 23                 | 134       | 15.5C | 8.0                          | 257                     |      |      | .20  |                                                    | .00  | 2.38 |     | .21  |                      | --       | --         | 0.2       |             |         |
|                                           |                |                    |           |       |                              |                         |      |      | 7    |                                                    |      |      |     |      |                      |          |            |           |             |         |

TABLE D-2 (Cont)

## MINERAL ANALYSES OF SURFACE WATER

| DATE<br>TIME     | SAMPLER<br>LAB | G.H.<br>O<br>DEPTH | DO<br>SAT                       | TEMP           | FIELD            |            | MINERAL CONSTITUENTS IN |                  |                  |                  |                | MILLIGRAMS PER LITER<br>MILLIEQUIVALENTS PER LITER |                  |                  |                 |                 | MILLIGRAMS PER LITER |            |             |             |            |
|------------------|----------------|--------------------|---------------------------------|----------------|------------------|------------|-------------------------|------------------|------------------|------------------|----------------|----------------------------------------------------|------------------|------------------|-----------------|-----------------|----------------------|------------|-------------|-------------|------------|
|                  |                |                    |                                 |                | LABORATORY<br>PH | EC         | CA                      | MG               | NA               | K                | CO3            | HCO3                                               | SO4              | CL               | VALUE<br>NO3    | B               | F                    | TDS<br>SUM | TH<br>NCH   | TURB<br>SAR |            |
|                  |                |                    |                                 |                |                  |            |                         |                  |                  |                  |                |                                                    |                  |                  |                 |                 |                      |            |             |             |            |
| .....            |                |                    |                                 |                |                  |            |                         |                  |                  |                  |                |                                                    |                  |                  |                 |                 |                      |            |             |             |            |
| F3               |                | 1100.00            | KLAMATH RIVER NEAR KLAMATH      |                |                  |            |                         |                  |                  |                  |                |                                                    |                  |                  |                 |                 |                      |            |             |             |            |
| 10/03/72<br>0830 | 5050<br>5000   | 5.41<br>3400       | 8.9<br>90                       | 60.8F<br>16.0C | 7.6<br>7.0       | 231<br>230 | 20<br>1.00<br>42        | 9.5<br>.78<br>33 | 13<br>.57<br>24  | 2.1<br>.05<br>2  | 0<br>.00       | 115<br>1.88<br>77                                  | 17<br>.35<br>14  | 6.5<br>.18<br>7  | 1.3<br>.02<br>1 | .01<br>23.0     | .2<br>149            | 149        | 89<br>0     | 4A<br>0.6   |            |
| 11/13/72<br>1530 | 5050<br>5000   | 6.92<br>7420       | 10.4<br>93                      | 50.9F<br>10.5C | 7.6<br>7.3       | 187<br>182 | 18<br>.90<br>45         | 8.0<br>.66<br>33 | 8.7<br>.38<br>19 | 1.4<br>.04<br>2  | 0<br>.00       | 97<br>1.59<br>79                                   | 12<br>.25<br>12  | 5.2<br>.15<br>7  | 1.9<br>.03<br>1 | .09<br>23.0     | .1<br>126            | 126        | 78<br>0     | 10A<br>0.4  |            |
| 12/04/72<br>1515 | 5050<br>5000   | 7.41<br>9140       | 11.7<br>96                      | 44.6F<br>7.0C  | 7.5<br>7.6       | 186<br>180 | 15<br>.75<br>41         | 7.6<br>.63<br>35 | 9.2<br>.40<br>22 | 1.5<br>.04<br>2  | 0<br>.00       | 89<br>1.46<br>78                                   | 13<br>.27<br>14  | 4.0<br>.11<br>6  | 2.4<br>.04<br>2 | .07<br>23.0     | .2<br>120            | 120        | 69<br>0     | 20A<br>0.5  |            |
| 01/16/73<br>1515 | 5050<br>5000   | 75900              | 11.5<br>95                      | 44.6F<br>7.0C  | 7.4<br>7.6       | 108<br>107 | 12<br>.60<br>51         | 4.6<br>.38<br>32 | 3.8<br>.17<br>15 | .7<br>.02<br>2   | 0<br>.00       | 59<br>.97<br>83                                    | 6.3<br>.13<br>11 | 2.0<br>.06<br>5  | .6<br>.01<br>1  | .04<br>14.0     | .1<br>73             | 73         | 49<br>1     | 200A<br>0.2 |            |
| 02/05/73<br>1430 | 5050<br>5000   |                    | 27100                           | 11.7<br>97     | 45.5F<br>7.5C    | 7.4<br>7.9 | 141<br>147              | 17<br>.85<br>54  | 6.0<br>.49<br>31 | 5.1<br>.22<br>14 | .9<br>.02<br>1 | 0<br>.00                                           | 77<br>1.26<br>82 | 9.7<br>.20<br>13 | 2.3<br>.06<br>4 | 1.0<br>.02<br>1 | .03<br>17.0          | .3<br>97   | 97          | 67<br>4     | 60A<br>0.3 |
| 03/05/73<br>1515 | 5050<br>5050   |                    | 25400                           | 10.1<br>85     | 46.4F<br>8.0C    | 7.5<br>7.4 | 152<br>154              | 16<br>.80<br>50  | 7.0<br>.58<br>36 | 4.5<br>.20<br>13 | .8<br>.02<br>1 | 0<br>.00                                           | 83<br>1.36<br>84 | 9.0<br>.19<br>12 | 2.0<br>.06<br>4 | .5<br>.01<br>1  | .00<br>17.0          | .1<br>98   | 98          | 69<br>1     | 30A<br>0.2 |
| 04/02/73<br>1430 | 5050<br>5050   | 19300              | 11.1<br>96                      | 48.2F<br>9.0C  | 7.6<br>7.8       | 141<br>143 | 15<br>.75<br>50         | 6.4<br>.53<br>36 | 4.4<br>.19<br>13 | .8<br>.02<br>1   | 0<br>.00       | 78<br>1.28<br>84                                   | 8.3<br>.17<br>11 | 2.6<br>.07<br>5  | .1<br>.00       | .04<br>15.0     | .0<br>91             | 91         | 64<br>0     | 30A<br>0.2  |            |
| 05/22/73<br>1435 | 5050<br>5000   | 10300              | 9.9<br>102                      | 62.6F<br>17.0C | 7.5<br>7.4       | 119<br>116 | 13<br>.65<br>52         | 5.2<br>.43<br>35 | 3.3<br>.14<br>11 | .7<br>.02<br>2   | 0<br>.00       | 66<br>1.08<br>87                                   | 5.6<br>.12<br>10 | 1.4<br>.04<br>3  | .0<br>.00       | .03<br>13.0     | .1<br>75             | 75         | 54<br>0     | 9A<br>0.2   |            |
| 06/20/73<br>0830 | 5050<br>5050   | 4400               | 9.1<br>96                       | 64.4F<br>18.0C | 7.8<br>7.8       | 171<br>170 | 18<br>.90<br>52         | 6.9<br>.57<br>33 | 5.0<br>.22<br>13 | 1.2<br>.03<br>2  | 0<br>.00       | 95<br>1.56<br>85                                   | 9.7<br>.20<br>11 | 2.9<br>.08<br>4  | .0<br>.00       | .06<br>14.0     | .0<br>105            | 104        | 74<br>0     | 2E<br>0.3   |            |
| 07/09/73<br>1420 | 5050<br>5000   | 3020               | 9.9<br>110                      | 69.8F<br>21.0C | 8.1<br>8.1       | 193<br>192 | 20<br>1.00<br>51        | 7.7<br>.63<br>32 | 7.1<br>.31<br>16 | 1.4<br>.04<br>2  | 0<br>.00       | 99<br>1.62<br>81                                   | 13<br>.27<br>13  | 4.1<br>.12<br>6  | .0<br>.00       | .06<br>13.0     | .0<br>115            | 115        | 82<br>1     | 3A<br>0.3   |            |
| 08/07/73<br>0945 | 5050<br>5050   | 2750               | 8.5<br>93                       | 68.0F<br>20.0C | 7.7<br>8.2       | 206<br>205 | 21<br>1.05<br>49        | 8.4<br>.69<br>32 | 8.6<br>.37<br>17 | 1.5<br>.04<br>2  | 0<br>.00       | 107<br>1.75<br>83                                  | 12<br>.25<br>12  | 4.4<br>.12<br>6  | .0<br>.00       | .09<br>14.0     | .1<br>123            | 123        | 87<br>0     | 1A<br>0.4   |            |
| 09/12/73<br>0835 | 5050<br>5000   | 4.26<br>1900       | 9.8<br>103                      | 64.4F<br>18.0C | 7.8<br>8.1       | 206<br>209 | 25<br>1.25<br>52        | 8.7<br>.72<br>30 | 9.2<br>.40<br>17 | 1.7<br>.04<br>2  | 0<br>.00       | 113<br>1.85<br>82                                  | 12<br>.25<br>11  | 5.2<br>.15<br>7  | .0<br>.00       | .08<br>16.0     | .2<br>134            | 133        | 98<br>6     | 2A<br>0.4   |            |
| F3               |                | 1220.01            | KLAMATH RIVER AT ORLEANS        |                |                  |            |                         |                  |                  |                  |                |                                                    |                  |                  |                 |                 |                      |            |             |             |            |
| 10/02/72<br>1100 | 5050           | 2.57<br>2840       | 10.0<br>102                     | 61 F<br>16 C   | 7.9              | 232        | --                      | --               | --               | --               | --             | --                                                 | --               | --               | --              | --              | --                   |            |             | 1A          |            |
| 11/13/72<br>1145 | 5050<br>5050   | 3.94<br>4500       | 11.5<br>102                     | 49.1F<br>9.5C  | 7.6              | 178        | --                      | --               | --               | --               | --             | --                                                 | --               | --               | --              | --              | --                   |            |             | 5AF         |            |
| 12/04/72<br>1130 | 5050<br>5050   | 4.54<br>5300       | 12.3<br>100                     | 42.8F<br>6.0C  | 7.8              | 179        | --                      | --               | --               | --               | --             | --                                                 | --               | --               | --              | --              | --                   |            |             | 5AF         |            |
| 01/16/73<br>1145 | 5050<br>5050   | 14.20<br>34600     | 12.5<br>101                     | 42.8F<br>6.0C  | 7.4<br>7.1       | 105<br>107 | --                      | --               | 4.6<br>.20<br>17 | --               | 0<br>.00       | 52<br>.85                                          | --               | 5.6<br>.16       | --              | .00             | --                   | 50         | 120A<br>0.3 |             |            |
| 02/05/73<br>1100 | 5050<br>5050   | 7.88<br>10600      | 12.7<br>103                     | 42.8F<br>6.0C  | 7.8              | 158        | --                      | --               | --               | --               | --             | --                                                 | --               | --               | --              | --              | --                   |            |             | 14AF        |            |
| 03/05/73<br>1145 | 5050<br>5050   | 7.72<br>10200      | 11.3<br>95                      | 45.5F<br>7.5C  | 7.4              | 161        | --                      | --               | --               | --               | --             | --                                                 | --               | --               | --              | --              | --                   |            |             | 6AF         |            |
| 04/02/73<br>1115 | 5050<br>5050   | 6.24<br>6500       | 11.5<br>96                      | 45.0F<br>7.2C  | 7.8              | 159        | --                      | --               | --               | --               | --             | --                                                 | --               | --               | --              | --              | --                   |            |             | 2AF         |            |
| 05/22/73<br>1045 | 5050<br>5050   | 6.19<br>6770       | 10.4<br>103                     | 58.1F<br>14.5C | 7.4              | 106        | --                      | --               | --               | --               | --             | --                                                 | --               | --               | --              | --              | --                   |            |             | 3AF         |            |
| 06/19/73<br>1050 | 5050<br>5050   | 2.92<br>2900       | 9.8<br>102                      | 62.6F<br>17.0C | 7.8<br>7.6       | 171<br>169 | --                      | --               | 7.2<br>.31<br>18 | --               | 0<br>.00       | 89<br>1.46                                         | --               | 2.9<br>.08       | --              | .00             | --                   | 70         | 1A<br>0.4   |             |            |
| 07/09/73<br>1030 | 5050<br>5050   | 1.68<br>1820       | 10.0<br>113                     | 69.8F<br>21.0C | 8.0              | 190        | --                      | --               | --               | --               | --             | --                                                 | --               | --               | --              | --              | --                   |            |             | 2AF         |            |
| 08/06/73<br>1300 | 5050<br>5050   | 0.75<br>1430E      | 10.1<br>119                     | 74.3F<br>23.5C | 8.1              | 193        | --                      | --               | --               | --               | --             | --                                                 | --               | --               | --              | --              | --                   |            |             | 1AF         |            |
| 09/11/73<br>1105 | 5050<br>5050   | 0.09<br>1260E      | 11.4<br>125                     | 67.1F<br>19.5C | 8.1              | 195        | --                      | --               | --               | --               | --             | --                                                 | --               | --               | --              | --              | --                   |            |             | 1AF         |            |
| F3               |                | 1430.00            | KLAMATH RIVER NEAR SEJAD VALLEY |                |                  |            |                         |                  |                  |                  |                |                                                    |                  |                  |                 |                 |                      |            |             |             |            |
| 10/10/72<br>1130 | 5050           | 2180               | 9.9<br>101                      | 58.1F<br>14.5C | 7.8              | 238        | --                      | --               | --               | --               | --             | --                                                 | --               | --               | --              | --              | --                   |            |             | 3A          |            |
| 11/03/72<br>1015 | 5050<br>5050   | 2260               | 10.3<br>97                      | 51.8F<br>11.0C | 7.6              | 204        | --                      | --               | --               | --               | --             | --                                                 | --               | --               | --              | --              | --                   |            |             | 5AF         |            |

TABLE D-2 (Cont)  
MINERAL ANALYSES OF SURFACE WATER

| DATE<br>TIME                                          | SAMPLER<br>LAB | G.H.<br>O<br>DEPTH | DO<br>SAT   | TEMP           | FIELD<br>LABORATORY<br>PH EC | MINERAL CONSTITUENTS IN |    |                 |    |          | MILLIGRAMS PER LITER<br>MILLIEQUIVALENTS PER LITER |     |                  |                 |           | MILLIGRAMS PER LITER |           |             |           |  |
|-------------------------------------------------------|----------------|--------------------|-------------|----------------|------------------------------|-------------------------|----|-----------------|----|----------|----------------------------------------------------|-----|------------------|-----------------|-----------|----------------------|-----------|-------------|-----------|--|
|                                                       |                |                    |             |                |                              | CA                      | MG | NA              | K  | CO3      | PERCENT REACTANCE VALUE                            |     |                  |                 | B<br>SI02 | F<br>SUM             | TH<br>NCH | TURB<br>SAR |           |  |
|                                                       |                |                    |             |                |                              |                         |    |                 |    |          | HCO3                                               | SO4 | CL               | NO3             |           |                      |           |             |           |  |
| F3 1430.00 KLAMATH RIVER NEAR SEIAD VALLEY CONTINUED  |                |                    |             |                |                              |                         |    |                 |    |          |                                                    |     |                  |                 |           |                      |           |             |           |  |
| 12/13/72<br>1305                                      | 5050<br>5050   | 3400E              | 12.5<br>94  | 35.6F<br>2.0C  | 7.5<br>203                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   | --        |             | 5AF       |  |
| 01/24/73<br>1055                                      | 5050<br>5050   | 4910               | 12.4<br>96  | 37.4F<br>3.0C  | 7.6<br>206                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   | --        |             | 12AF      |  |
| 02/20/73<br>1100                                      | 5050<br>5050   | 3640               | 12.0<br>98  | 41.0F<br>5.0C  | 7.6<br>204                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   | --        |             | 5AF       |  |
| 03/13/73<br>1545                                      | 5050<br>5050   | 4080               | 11.1<br>95  | 44.6F<br>7.0C  | 7.9<br>218                   | --                      | -- | 16<br>.70<br>31 | -- | 0<br>.00 | 100<br>1.64                                        | --  | 4.5<br>.13       | --              | .00       | --                   |           | 77          | 2A<br>0.8 |  |
| 04/11/73<br>1130                                      | 5050<br>5050   | 2690               | 10.0<br>94  | 51.8F<br>11.0C | 7.8<br>196                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 2AF       |  |
| 05/16/73<br>1000                                      | 5050<br>5050   | 2800               | 9.5<br>97   | 58.1F<br>14.5C | 7.6<br>140                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 7AF       |  |
| 06/14/73<br>0930                                      | 5050<br>5050   | 1350               | 9.6<br>102  | 61.7F<br>16.5C | 7.9<br>216                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 1AF       |  |
| 07/01/73<br>1400                                      | 5050<br>5050   | 1010               | 10.0<br>119 | 71.6F<br>22.0C | 8.2<br>234                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 1AF       |  |
| 08/08/73<br>1045                                      | 5050<br>5050   | 828                | 10.8<br>128 | 71.6F<br>22.0C | 8.4<br>207                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 2AF       |  |
| 09/07/73<br>0910                                      | 5050<br>5050   | 850E               | 10.7<br>117 | 64.4F<br>18.0C | 8.4<br>208<br>211            | --                      | -- | 17<br>.74<br>33 | -- | 0<br>.00 | 105<br>1.72                                        | --  | 6.8<br>.19       | --              | .20       | --                   |           | 76          | 0A<br>0.8 |  |
| F3 1470.00 KLAMATH RIVER ABOVE HAMBURG RESERVOIR SITE |                |                    |             |                |                              |                         |    |                 |    |          |                                                    |     |                  |                 |           |                      |           |             |           |  |
| 11/03/72<br>1000                                      | 5050<br>5050   | 4280E              | 9.8<br>91   | 50.0F<br>10.0C | 7.4<br>197<br>197            | --                      | -- | 16<br>.70<br>36 | -- | 0<br>.00 | 95<br>1.56                                         | --  | 4.4<br>.12       | --              | .10       | --                   |           | 63          | 4A<br>0.9 |  |
| 01/24/73<br>1000                                      | 5050<br>5050   | 3410E              | 12.3<br>95  | 36.5F<br>2.5C  | 7.6<br>215<br>227            | --                      | -- | 20<br>.87<br>37 | -- | 0<br>.00 | 94<br>1.54<br>85                                   | --  | 9.2<br>.26<br>14 | 1.0<br>.02<br>1 | .10       | --                   |           | 74          | 4A<br>1.0 |  |
| 03/13/73<br>1450                                      | 5050<br>5050   | 3260E              | 10.7<br>93  | 44.6F<br>7.0C  | 7.7<br>226                   | --                      | -- | 19<br>.83<br>35 | -- | 0<br>.00 | 97<br>1.59                                         | --  | 5.4<br>.15       | --              | .00       | --                   |           | 76          | 2A<br>0.9 |  |
| 05/16/73<br>0905                                      | 5050<br>5050   | 1130E              | 9.0<br>98   | 62.6F<br>17.0C | 8.1<br>185                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 3AF       |  |
| 07/02/73<br>1315                                      | 5050<br>5050   | 760E               | 10.6<br>127 | 71.6F<br>22.0C | 8.3<br>227                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 1AF       |  |
| 09/07/73<br>0830                                      | 5050<br>5050   | 740E               | 10.0<br>109 | 62.6F<br>17.0C | 8.1<br>208                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 1AF       |  |
| F3 1599.01 KLAMATH RIVER BELOW IRON GATE DAM          |                |                    |             |                |                              |                         |    |                 |    |          |                                                    |     |                  |                 |           |                      |           |             |           |  |
| 10/10/72<br>0915                                      | 5050<br>5050   | 1800               | 5.4<br>56   | 57 F<br>14 C   | 7.2<br>216                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 3AF       |  |
| 11/03/72<br>0830                                      | 5050<br>5050   | 2300               | 7.5<br>73   | 51.8F<br>11.0C | 7.4<br>165<br>167            | --                      | -- | 14<br>.61<br>37 | -- | 0<br>.00 | 79<br>1.29                                         | --  | 2.2<br>.06       | --              | .10       | --                   |           | 51          | 3A<br>0.9 |  |
| 12/13/72<br>1100                                      | 5050<br>5050   | 2960               | 11.7<br>90  | 35.6F<br>2.0C  | 7.3<br>189                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 6AF       |  |
| 01/24/73<br>0830                                      | 5050<br>5050   | 3170               | 11.9<br>93  | 36.5F<br>2.5C  | 7.2<br>199                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 8AF       |  |
| 02/20/73<br>0925                                      | 5050<br>5050   | 2440               | 11.1<br>92  | 40.1F<br>4.5C  | 7.7<br>185                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 3AF       |  |
| 03/13/73<br>1330                                      | 5050<br>5050   | 3050               | 10.2<br>90  | 44.6F<br>7.0C  | 7.4<br>208                   | --                      | -- | 18<br>.78<br>39 | -- | 0<br>.00 | 82<br>1.34                                         | --  | 3.7<br>.10       | --              | .00       | --                   |           | 62          | 3A<br>1.0 |  |
| 04/11/73<br>1000                                      | 5050<br>5050   | 1380               | 11.8<br>115 | 51.8F<br>11.0C | 8.1<br>195                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 3AF       |  |
| 05/16/73<br>0755                                      | 5050<br>5050   | 1046               | 9.9<br>112  | 64.4F<br>18.0C | 8.0<br>153                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 2AF       |  |
| 06/14/73<br>0755                                      | 5050<br>5050   | 750                | 9.9<br>112  | 64.4F<br>18.0C | 8.0<br>214<br>215            | --                      | -- | 19<br>.83<br>38 | -- | 0<br>.00 | 96<br>1.57                                         | --  | 4.0<br>.11       | --              | .00       | --                   |           | 69          | 1A<br>1.0 |  |
| 07/02/73<br>1150                                      | 5050<br>5050   | 745                | 12.6<br>148 | 68.0F<br>20.0C | 8.3<br>219                   | --                      | -- | --              | -- | --       | --                                                 | --  | --               | --              | --        | --                   |           |             | 2AF       |  |

TABLE D-2 (Cont)

## MINERAL ANALYSES OF SURFACE WATER

| DATE<br>TIME | SAMPLER<br>LAB | G.H.<br>O<br>DEPTH | DO<br>SAT                         | TEMP  | FIELD            |     | MINERAL CONSTITUENTS IN |     |     |     |     | MILLIGRAMS PER LITER<br>MILLIEQUIVALENTS PER LITER |           |     |     |     | MILLIGRAMS PER LITER |            |           |             |  |
|--------------|----------------|--------------------|-----------------------------------|-------|------------------|-----|-------------------------|-----|-----|-----|-----|----------------------------------------------------|-----------|-----|-----|-----|----------------------|------------|-----------|-------------|--|
|              |                |                    |                                   |       | LABORATORY<br>PH | EC  | CA                      | MG  | NA  | K   | CO3 | HCO3                                               | SO4       | CL  | NO3 | B   | F<br>SI02            | TDS<br>SUM | TH<br>NCH | TURB<br>SAR |  |
|              |                |                    |                                   |       |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| .....        |                |                    |                                   |       |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| F3           |                | 1599.01            | KLAMATH RIVER BELOW IRON GATE DAM |       |                  |     |                         |     |     |     |     |                                                    | CONTINUED |     |     |     |                      |            |           |             |  |
| 08/08/73     | 5050           |                    | 10.0                              | 69.8F | 9.0              | 176 | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  |                      |            | 3AF       |             |  |
| 0915         | 5050           | 675                | 120                               | 21.0C |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 09/07/73     | 5050           |                    | 8.8                               | 62.6F | 8.1              | 180 | --                      | --  | 16  | --  | 0   | 89                                                 | --        | 4.1 | --  | .20 | --                   |            | 60        | 1A          |  |
| 0700         | 5050           | 720                | 97                                | 17.0C | 7.7              | 188 |                         |     | .70 |     | .00 | 1.46                                               |           | .12 |     |     |                      |            | 0.9       |             |  |
|              |                |                    |                                   |       |                  |     |                         |     | 37  |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| F3           |                | 4100.00            | SALMON RIVER AT SOMESBAR          |       |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 10/02/72     | 5050           | 3.58               | 10.0                              | 60.8F | 7.9              | 150 | --                      | --  | 3.7 | --  | 0   | 82                                                 | --        | 3.7 | --  | .00 | --                   |            | 68        | 0A          |  |
| 1300         | 5050           | 208                | 102                               | 16.0C | 7.8              | 151 |                         |     | .16 |     | .00 | 1.34                                               |           | .10 |     |     |                      |            | 0.2       |             |  |
|              |                |                    |                                   |       |                  |     |                         |     | 11  |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 06/19/73     | 5050           | 4.45               | 9.9                               | 60.8F | 7.8              | 93  | 12                      | 2.9 | 1.9 | 1.2 | 0   | 50                                                 | 8.9       | .3  | .0  | .10 | --                   | 80         | 42        | 0A          |  |
| 1130         | 5050           | 620                | 101                               | 16.0C | 7.9              | 94  | .60                     | .24 | .08 | .03 | .00 | .82                                                | .19       | .01 | .00 | --  | 52                   | 1          | 0.1       |             |  |
|              |                |                    |                                   |       |                  |     | 63                      | 25  | 8   | 3   |     | 80                                                 | 19        | 1   |     |     |                      |            |           |             |  |
| F4           |                | 1080.00            | TRINITY RIVER AT HOOPA            |       |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 10/02/72     | 5050           | 14.06              | 8.8                               | 61 F  | 7.8              | 219 | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 1AF       |             |  |
| 1000         |                | 650                | 90                                | 16 C  |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 11/13/72     | 5050           | 15.94              | 10.7                              | 48.2F | 7.6              | 191 | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 14AF      |             |  |
| 1045         | 5050           | 2080               | 93                                | 9.0C  |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 12/04/72     | 5050           | 15.84              | 11.6                              | 43.7F | 7.5              | 168 | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 52AF      |             |  |
| 1020         | 5050           | 2000               | 95                                | 6.5C  |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 01/16/73     | 5050           | 26.96              | 11.8                              | 44.6F | 7.5              | 125 | --                      | --  | 2.4 | --  | 0   | 68                                                 | --        | 3.6 | .3  | .00 | --                   |            | 65        | 310A        |  |
| 1030         | 5050           | 28800              | 98                                | 7.0C  | 7.3              | 129 |                         |     | .10 |     | .00 | 1.11                                               |           | .10 | .00 |     |                      |            | 0.1       |             |  |
|              |                |                    |                                   |       |                  |     |                         |     | 7   |     |     | 92                                                 |           | 8   |     |     |                      |            |           |             |  |
| 02/05/73     | 5050           | 21.98              | 12.0                              | 42.8F | 7.6              | 149 | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 150AF     |             |  |
| 0945         | 5050           | 13200              | 97                                | 6.0C  |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 03/05/73     | 5050           | 19.84              | 10.5                              | 45.5F | 7.5              | 156 | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 42AF      |             |  |
| 1040         | 5050           | 8500               | 88                                | 7.5C  |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 04/02/73     | 5050           | 18.97              | 10.9                              | 44.6F | 7.8              | 156 | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 42AF      |             |  |
| 1015         | 5050           | 6500               | 90                                | 7.0C  |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 05/22/73     | 5050           | 16.78              | 10.0                              | 59.0F | 8.3              | 126 | --                      | --  | 2.5 | --  | 0   | 70                                                 | --        | 1.0 | --  | .00 | --                   |            | 60        | 4A          |  |
| 0950         | 5050           | 3100               | 100                               | 15.0C | 7.7              | 126 |                         |     | .11 |     | .00 | 1.15                                               |           | .03 |     |     |                      |            | 0.1       |             |  |
|              |                |                    |                                   |       |                  |     |                         |     | 8   |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 06/19/73     | 5050           | 14.86              | 9.6                               | 60.8F | 7.3              | 170 | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 1AF       |             |  |
| 0950         | 5050           | 1460               | 98                                | 16.0C |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 07/09/73     | 5050           | 13.96              | 9.7                               | 48.6F | 7.8              | 187 | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 1AF       |             |  |
| 0935         | 5050           | 890                | 85                                | 9.2C  |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 08/06/73     | 5050           | 13.25              | 9.3                               | 75.2F | 7.8              | 201 | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 0AF       |             |  |
| 1135         | 5050           | 500                | 111                               | 24.0C |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 09/11/73     | 5050           | 13.19              | 11.1                              | 66.2F | 8.0              | 192 | --                      | --  | 4.6 | --  | 0   | 106                                                | --        | 5.2 | --  | .10 | --                   |            | 97        | 0A          |  |
| 1005         | 5050           | 470                | 120                               | 19.0C | 7.8              | 203 |                         |     | .20 |     | .00 | 1.74                                               |           | .15 |     |     |                      |            | 0.2       |             |  |
|              |                |                    |                                   |       |                  |     |                         |     | 9   |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| F4           |                | 1376.00            | TRINITY RIVER NEAR BURNT RANCH    |       |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 11/13/72     | 5050           |                    | 11.2                              | 47.3F | 7.6              | 154 | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 3AF       |             |  |
| 0945         | 5050           | 845                | 98                                | 8.5C  |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 01/16/73     | 5050           |                    | 11.3                              | 43.7F | 7.3              | 111 | --                      | --  | 2.2 | --  | 0   | 60                                                 | --        | 4.7 | .3  | .00 | --                   |            | 59        | 100A        |  |
| 0930         | 5050           | 8160               | 95                                | 6.5C  | 7.3              | 112 |                         |     | .10 |     | .00 | .98                                                |           | .13 | .00 |     |                      |            | 0.1       |             |  |
|              |                |                    |                                   |       |                  |     |                         |     | 8   |     |     | 88                                                 |           | 12  |     |     |                      |            |           |             |  |
| 03/05/73     | 5050           |                    | 10.7                              | 44.6F | 7.9              | 155 | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 4AF       |             |  |
| 0945         | 5050           | 2800               | 91                                | 7.0C  |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 05/22/73     | 5050           |                    | 9.9                               | 59.0F | 7.3              | 93  | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 1AF       |             |  |
| 0900         | 5050           | 1690               | 101                               | 15.0C |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 07/09/73     | 5050           |                    | 9.4                               | 66.2F | 7.8              | 141 | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 0AF       |             |  |
| 0830         | 5050           | 429                | 104                               | 19.0C |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 09/11/73     | 5050           |                    | 10.6                              | 66.2F | 7.8              | 144 | --                      | --  | 4.4 | --  | 0   | 81                                                 | --        | 6.2 | --  | .10 | --                   |            | 68        | 0A          |  |
| 0910         | 5050           | 283                | 117                               | 19.0C | 7.5              | 152 |                         |     | .19 |     | .00 | 1.33                                               |           | .17 |     |     |                      |            | 0.2       |             |  |
|              |                |                    |                                   |       |                  |     |                         |     | 12  |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| F4           |                | 1640.00            | TRINITY RIVER AT LEWISTON         |       |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 11/13/72     | 5050           | 3.38               | 10.5                              | 45.5F | 7.3              | 83  | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 50AF      |             |  |
| 0800         | 5050           | 254                | 93                                | 7.5C  |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 01/16/73     | 5050           | 3.05               | 11.0                              | 41.0F | 7.2              | 91  | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 15AF      |             |  |
| 0800         | 5050           | 168                | 91                                | 5.0C  |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |
| 03/05/73     | 5050           | 2.99               | 10.0                              | 44.6F | 7.6              | 90  | --                      | --  | --  | --  | --  | --                                                 | --        | --  | --  | --  | --                   |            | 1AF       |             |  |
| 0810         | 5050           | 147                | 87                                | 7.0C  |                  |     |                         |     |     |     |     |                                                    |           |     |     |     |                      |            |           |             |  |

TABLE D-2 (Cont)

## MINERAL ANALYSES OF SURFACE WATER

| DATE<br>TIME     | SAMPLER<br>LAB | G.M.<br>O<br>DEPTH | DO<br>SAT                 | TEMP           | FIELD            |            | MINERAL CONSTITUENTS IN |                  |                  |                 |          | MILLIGRAMS PER LITER<br>MILLIEQUIVALENTS PER LITER |                  |                 |                 |            | MILLIGRAMS PER LITER |             |              |            |  |
|------------------|----------------|--------------------|---------------------------|----------------|------------------|------------|-------------------------|------------------|------------------|-----------------|----------|----------------------------------------------------|------------------|-----------------|-----------------|------------|----------------------|-------------|--------------|------------|--|
|                  |                |                    |                           |                | LABORATORY<br>PH | EC         | CA                      | MG               | NA               | K               | CO3      | PERCENT RF                                         |                  |                 |                 | TDS<br>SUM | TH<br>NCH            | TURB<br>SAP |              |            |  |
|                  |                |                    |                           |                |                  |            |                         |                  |                  |                 |          | HCO3                                               | SO4              | CL              | NO3             |            |                      |             |              |            |  |
| .....            |                |                    |                           |                |                  |            |                         |                  |                  |                 |          |                                                    |                  |                 |                 |            |                      |             |              |            |  |
| F4               |                | 1640.00            | TRINITY RIVER AT LEWISTON |                |                  |            |                         |                  |                  |                 |          |                                                    | CONTINUED        |                 |                 |            |                      |             |              |            |  |
| 05/22/73<br>0715 | 5050<br>5050   | 3.02<br>153        | 10.9<br>99                | 47.3F<br>8.5C  | 7.1<br>7.4       | 84<br>86   | --                      | --               | 2.7<br>.12<br>13 | --              | 0<br>.00 | 50<br>.82                                          | --               | .1<br>.00       | --              | .00<br>--  | --                   | 39          | 0A<br>0.2    |            |  |
| 07/09/73<br>0705 | 5050<br>5050   | 3.03<br>156        | 10.2<br>92                | 47.3F<br>8.5C  | 7.2              | 83         | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 0AF          |            |  |
| 09/11/73<br>0720 | 5050<br>5050   | 3.25<br>203        | 10.2<br>92                | 47.3F<br>8.5C  | 7.2              | 82         | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 1AF          |            |  |
| 09/19/73<br>1005 | 5050<br>5050   |                    | 12.6<br>115               | 48.2F<br>9.0C  | 7.1<br>8.1       | 90<br>85   | 4.8<br>.24<br>27        | 6.8<br>.56<br>62 | 1.9<br>.08<br>9  | .8<br>.02<br>2  | 0<br>.00 | 48<br>.79<br>84                                    | 4.9<br>.10<br>11 | 1.9<br>.05<br>5 | --              | .00<br>--  | --                   | 52<br>45    | 40<br>1      | 1A<br>0.1  |  |
| 09/21/73<br>1400 | 5050<br>5050   | 3.24               | 12.3<br>115               | 50.0F<br>10.0C | 7.3<br>7.4       | 90<br>84   | --                      | --               | 2.0<br>.09<br>10 | --              | 0<br>.00 | 49<br>.80                                          | --               | 1.0<br>.03      | --              | .10<br>--  | --                   | 40          | 0A<br>0.1    |            |  |
| F5               |                | 1100.00            | MAD RIVER NEAR ARCATA     |                |                  |            |                         |                  |                  |                 |          |                                                    |                  |                 |                 |            |                      |             |              |            |  |
| 11/13/72<br>1345 | 5050<br>5050   | 4.76<br>420        | 10.6<br>96                | 51.8F<br>11.0C | 7.5<br>7.7       | 165<br>169 | --                      | --               | 4.3<br>.19<br>11 | --              | 0<br>.00 | 78<br>1.28                                         | --               | 3.3<br>.09      | --              | .10<br>--  | --                   | 74          | 44A<br>0.2   |            |  |
| 01/16/73<br>1340 | 5050<br>5050   | 13.07<br>14800     | 10.9<br>93                | 47.3F<br>8.5C  | 7.8<br>7.0       | 90<br>105  | --                      | --               | 3.2<br>.14<br>11 | --              | 0<br>.00 | 51<br>.84                                          | --               | 5.6<br>.16      | --              | .00<br>--  | --                   | 56          | 1100A<br>0.2 |            |  |
| 03/05/73<br>1330 | 5050<br>5050   | 7.00<br>2450       | 10.8<br>93                | 48.2F<br>9.0C  | 7.3              | 102        | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 93AF         |            |  |
| 05/22/73<br>1310 | 5050<br>5050   | 3.02<br>130        | 10.1<br>108               | 66.2F<br>19.0C | 7.6              | 185        | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 1AF          |            |  |
| 07/09/73<br>1235 | 5050<br>5050   | 2.22<br>43         | 10.3<br>115               | 69.8F<br>21.0C | 7.9              | 215        | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 1AF          |            |  |
| 09/11/73<br>1305 | 5050<br>5050   | 1.47<br>15         | 12.3<br>124               | 60.8F<br>16.0C | 8.0              | 198        | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 1AF          |            |  |
| F5               |                | 5100.00            | REDWOOD CREEK AT ORICK    |                |                  |            |                         |                  |                  |                 |          |                                                    |                  |                 |                 |            |                      |             |              |            |  |
| 10/02/72<br>1415 | 5050           | 4.75<br>28         | 10.5<br>110               | 64 F<br>18 C   | 7.7              | 206        | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 1AF          |            |  |
| 11/13/72<br>1430 | 5050<br>5050   | 5.66<br>296        | 10.5<br>95                | 51.8F<br>11.0C | 7.3              | 183        | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 105AF        |            |  |
| 12/04/72<br>1400 | 5050<br>5050   | 6.25<br>500        | 11.4<br>94                | 44.6F<br>7.0C  | 7.4<br>7.2       | 143<br>148 | --                      | --               | 3.9<br>.17<br>12 | --              | 0<br>.00 | 52<br>.85                                          | --               | 3.8<br>.11      | --              | .00<br>--  | --                   | 63          | 250A<br>0.2  |            |  |
| 01/16/73<br>1430 | 5050<br>5050   | 11.16<br>8690      | 11.1<br>96                | 48.2F<br>9.0C  | 7.8<br>6.8       | 73<br>80   | --                      | --               | 2.9<br>.13<br>16 | --              | 0<br>.00 | 30<br>.49                                          | --               | 7.0<br>.20      | --              | .00<br>--  | --                   | 33          | 1200A<br>0.2 |            |  |
| 02/05/73<br>1345 | 5050<br>5050   | 8.24<br>2700       | 11.3<br>98                | 48.2F<br>9.0C  | 7.2              | 86         | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 1100AF       |            |  |
| 03/05/73<br>1430 | 5050<br>5050   | 7.51<br>1580       | 10.1<br>87                | 48.2F<br>9.0C  | 7.2              | 92         | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 75AF         |            |  |
| 04/02/73<br>1335 | 5050<br>5050   | 8.09<br>2250       | 10.7<br>92                | 48.2F<br>9.0C  | 7.4              | 84         | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 180AF        |            |  |
| 05/22/73<br>1355 | 5050<br>5050   | 5.51               | 10.0<br>106               | 65.3F<br>18.5C | 7.5              | 143        | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 1AF          |            |  |
| 06/19/73<br>1415 | 5050<br>5050   | 5.25<br>105        | 9.1<br>102                | 70.7F<br>21.5C | 7.5<br>7.5       | 165<br>160 | --                      | --               | 3.9<br>.17<br>11 | --              | 0<br>.00 | 76<br>1.25                                         | --               | 4.4<br>.12      | --              | .00<br>--  | --                   | 72          | 0A<br>0.2    |            |  |
| 07/09/73<br>1355 | 5050<br>5050   | 5.00               | 9.7<br>109                | 70.7F<br>21.5C | 7.6              | 180        | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 1AF          |            |  |
| 08/06/73<br>1610 | 5050<br>5050   | 4.74<br>23         | 10.0<br>107               | 66.2F<br>19.0C | 7.3              | 182        | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 1AF          |            |  |
| 09/11/73<br>1400 | 5050<br>5050   | 4.59<br>12         | 11.8<br>121               | 62.6F<br>17.0C | 7.6              | 167        | --                      | --               | --               | --              | --       | --                                                 | --               | --              | --              | --         | --                   |             | 1AF          |            |  |
| F6               |                | 1100.00            | EEL RIVER AT SCOTIA       |                |                  |            |                         |                  |                  |                 |          |                                                    |                  |                 |                 |            |                      |             |              |            |  |
| 10/03/72<br>1245 | 5050<br>5000   | 9.80<br>390        | 10.7<br>115               | 66.2F<br>19.0C | 8.0<br>7.4       | 297<br>298 | 38<br>1.90<br>61        | 10<br>.82<br>26  | 8.7<br>.38<br>12 | 1.4<br>.04<br>1 | 0<br>.00 | 136<br>2.23<br>72                                  | 30<br>.62<br>20  | 8.2<br>.23<br>7 | .2<br>.00       | .02        | .2<br>8.2            | 172<br>172  | 140<br>25    | 5A<br>0.3  |  |
| 11/14/72<br>1300 | 5050<br>5000   | 13.69<br>8770      | 10.5<br>95                | 51.8F<br>11.0C | 7.4<br>7.2       | 166<br>162 | 19<br>.95<br>56         | 5.6<br>.46<br>27 | 6.1<br>.27<br>16 | .9<br>.02<br>1  | 0<br>.00 | 79<br>1.29<br>75                                   | 13<br>.27<br>16  | 5.3<br>.15<br>9 | 1.3<br>.02<br>1 | .01        | .1<br>10.0           | 101<br>100  | 70<br>6      | 80A<br>0.3 |  |
| 12/05/72<br>1215 | 5050<br>5000   | 11.72<br>3290      | 11.9<br>98                | 44.6F<br>7.0C  | 7.5<br>7.9       | 196<br>192 | 23<br>1.15<br>57        | 6.9<br>.57<br>28 | 6.2<br>.27<br>13 | .9<br>.02<br>1  | 0<br>.00 | 98<br>1.61<br>79                                   | 16<br>.33<br>16  | 4.0<br>.11<br>5 | .2<br>.00       | .08        | .1<br>9.4            | 115<br>115  | 86<br>6      | 20A<br>0.3 |  |

TABLE D-2 (Cont)  
MINERAL ANALYSES OF SURFACE WATER

| DATE<br>TIME                                          | SAMPLER<br>LAB | G.H.<br>O<br>DEPTH | DO<br>SAT | TEMP  | FIELD<br>LABORATORY<br>PH EC | MINERAL CONSTITUENTS IN |            |           |           |          |          | MILLIGRAMS PER LITER<br>MILLIEQUIVALENTS PER LITER |           |          |          |     | MILLIGRAMS PER LITER |           |             |       |  |
|-------------------------------------------------------|----------------|--------------------|-----------|-------|------------------------------|-------------------------|------------|-----------|-----------|----------|----------|----------------------------------------------------|-----------|----------|----------|-----|----------------------|-----------|-------------|-------|--|
|                                                       |                |                    |           |       |                              | CA                      | MG         | NA        | K         | CO3      | HCO3     | SO4                                                | CL        | NO3      | B        | F   | TDS<br>SUM           | TH<br>NCH | TURB<br>SAR |       |  |
|                                                       |                |                    |           |       |                              |                         |            |           |           |          |          |                                                    |           |          |          |     |                      |           |             |       |  |
| .....                                                 |                |                    |           |       |                              |                         |            |           |           |          |          |                                                    |           |          |          |     |                      |           |             |       |  |
| F6 1100.00 EEL RIVER AT SCOTIA CONTINUED              |                |                    |           |       |                              |                         |            |           |           |          |          |                                                    |           |          |          |     |                      |           |             |       |  |
| 01/17/73                                              | 5050           |                    | 11.3      | 47.3F | 7.9                          | 102                     | 12         | 3.1       | 4.1       | .8       | 0        | 58                                                 | 5.3       | 1.9      | .4       | .06 | .2                   | 66        | 43          | 500A  |  |
| 1230                                                  | 5000           | 105000             | 96        | 8.5C  | 7.9                          | 100                     | .60<br>57  | .25<br>24 | .18<br>17 | .02<br>2 | .00      | .95<br>85                                          | .11<br>10 | .05<br>4 | .01<br>1 |     | 9.7                  | 66        | 0           | 0.3   |  |
| 02/06/73                                              | 5050           |                    | 11.0      | 48.2F | 7.5                          | 115                     | 14         | 3.9       | 4.5       | .8       | 0        | 67                                                 | 7.0       | 2.5      | .2       | .06 | .1                   |           | 51          | 200A  |  |
| 1545                                                  | 5000           | 36100              | 95        | 9.0C  | 8.0                          | 123                     | .70<br>56  | .32<br>26 | .20<br>16 | .02<br>2 | .00      | 1.10<br>83                                         | .15<br>11 | .07<br>5 | .00      |     | 11.0                 | 77        | 0           | 0.3   |  |
| 03/06/73                                              | 5050           |                    | 10.0      | 50.0F | 7.4                          | 152                     | 16         | 5.6       | 4.9       | .8       | 0        | 76                                                 | 9.7       | 3.0      | .1       | .04 | .1                   | 89        | 63          | 80A   |  |
| 1215                                                  | 5050           | 17600              | 88        | 10.0C | 7.4                          | 146                     | .80<br>54  | .46<br>31 | .21<br>14 | .02<br>1 | .00      | 1.25<br>82                                         | .20<br>13 | .08<br>5 | .00      |     | 11.0                 | 89        | 1           | 0.3   |  |
| 04/03/73                                              | 5050           |                    | 10.5      | 53.6F | 7.4                          | 148                     | 17         | 5.7       | 5.2       | .9       | 0        | 80                                                 | 8.9       | 3.3      | .1       | .08 | .0                   | 92        | 66          | 30A   |  |
| 1215                                                  |                | 9370               | 97        | 12.0C | 7.8                          | 150                     | .85<br>54  | .47<br>30 | .23<br>15 | .02<br>1 | .00      | 1.31<br>82                                         | .19<br>12 | .09<br>6 | .00      |     | 11.0                 | 92        | 1           | 0.3   |  |
| 05/23/73                                              | 5050           |                    | 9.7       | 66.2F | 7.9                          | 187                     | 23         | 6.3       | 5.3       | .9       | 0        | 103                                                | 11        | 2.6      | .1       | .08 | .1                   | 110       | 84          | 2A    |  |
| 1050                                                  | 5000           | 1610               | 104       | 19.0C | 7.3                          | 146                     | 1.15<br>60 | .52<br>27 | .23<br>12 | .02<br>1 | .00      | 1.69<br>85                                         | .23<br>12 | .07<br>4 | .00      |     | 9.6                  | 110       | 0           | 0.3   |  |
| 06/20/73                                              | 5050           |                    | 11.2      | 81.5F | 8.6                          | 254                     | 29         | 9.2       | 8.2       | 1.3      | 0        | 129                                                | 15        | 7.8      | .0       | .01 | .1                   | 139       | 110         | 1E    |  |
| 1215                                                  | 5050           | 517                | 140       | 27.5C | 8.0                          | 250                     | 1.45<br>56 | .76<br>29 | .36<br>14 | .03<br>1 | .00      | 2.11<br>80                                         | .31<br>12 | .22<br>8 | .00      |     | 4.3                  | 138       | 5           | 0.3   |  |
| 07/10/73                                              | 5050           |                    | 10.7      | 69.8F | 8.1                          | 282                     | 34         | 9.8       | 8.2       | 1.3      | 0        | 150                                                | 19        | 7.0      | .0       | .01 | .1                   | 163       | 130         | 1A    |  |
| 1115                                                  | 5000           | 169                | 119       | 21.0C | 8.1                          | 284                     | 1.70<br>59 | .81<br>28 | .36<br>12 | .03<br>1 | .00      | 2.46<br>80                                         | .40<br>13 | .20<br>7 | .00      |     | 8.9                  | 162       | 3           | 0.3   |  |
| 08/08/73                                              | 5050           |                    | 8.0       | 66.2F | 7.9                          | 296                     | 38         | 10        | 9.2       | 1.5      | 2.0      | 164                                                | 19        | 5.3      | .0       | .01 | .1                   | 174       | 140         | 1A    |  |
| 0655                                                  | 5050           | 110                | 86        | 19.0C | 8.4                          | 298                     | 1.90<br>60 | .82<br>26 | .40<br>13 | .04<br>1 | .07<br>2 | 2.69<br>81                                         | .40<br>12 | .15<br>5 | .00      |     | 7.4                  | 173       | 0           | 0.3   |  |
| 09/12/73                                              | 5050           | 10.06              | 10.9      | 64.4F | 7.9                          | 312                     | 43         | 12        | 10        | 1.7      | 0        | 177                                                | 20        | 7.5      | .0       | .01 | .2                   | 190       | 160         | 2A    |  |
| 1215                                                  | 5000           |                    | 115       | 18.0C | 8.3                          | 324                     | 2.15<br>59 | .99<br>27 | .44<br>12 | .04<br>1 | .00      | 2.90<br>82                                         | .42<br>12 | .21<br>6 | .00      |     | 7.6                  | 189       | 12          | 0.3   |  |
| F6 1154.50 EEL RIVER AT SOUTH FORK                    |                |                    |           |       |                              |                         |            |           |           |          |          |                                                    |           |          |          |     |                      |           |             |       |  |
| 10/03/72                                              | 5050           |                    | 9.3       | 66 F  | 7.9                          | 318                     | --         | --        | --        | --       | --       | --                                                 | --        | --       | --       | --  | --                   |           |             | 2AF   |  |
| 1330                                                  |                | 150                | 100       | 19 C  |                              |                         |            |           |           |          |          |                                                    |           |          |          |     | --                   |           |             |       |  |
| 11/14/72                                              | 5050           |                    | 10.8      | 50.0F | 7.6                          | 165                     | --         | --        | 5.2       | --       | 0        | 81                                                 | --        | 2.8      | --       | .10 | --                   |           | 77          | 175A  |  |
| 1400                                                  | 5050           | 7630               | 96        | 10.0C | 7.8                          | 174                     |            |           | .23<br>13 |          | .00      | 1.33                                               |           | .08      |          | --  |                      |           |             | 0.3   |  |
| 12/05/72                                              | 5050           |                    | 11.9      | 42.8F | 7.8                          | 189                     | --         | --        | 5.5       | --       | 0        | 94                                                 | --        | 2.3      | --       | .20 | --                   |           | 86          | 12A   |  |
| 1300                                                  | 5050           | 1390               | 96        | 6.0C  | 7.7                          | 200                     |            |           | .24<br>12 |          | .00      | 1.54                                               |           | .06      |          | --  |                      |           |             | 0.3   |  |
| 01/17/73                                              | 5050           |                    | 12.0      | 46.4F | 8.0                          | 850                     | 16         | 3.2       | 3.0       | 2.9      | 0        | 64                                                 | 5.6       | .5       | .0       | .30 | --                   | 72        | 53          | 250A  |  |
| 1310                                                  | 5050           | 49000              | 101       | 8.0C  | 7.5                          | 119                     | .80<br>63  | .26<br>21 | .13<br>10 | .07<br>6 | .00      | 1.05<br>89                                         | .12<br>10 | .01<br>1 | .00      |     | --                   | 63        | 1           | 0.2   |  |
| 02/06/73                                              | 5050           |                    | 11.5      | 48.2F | 7.6                          | 124                     | --         | --        | 3.6       | --       | 0        | 68                                                 | --        | 1.7      | --       | .00 | --                   |           | 59          | 230A  |  |
| 1630                                                  | 5050           | 15800              | 100       | 9.0C  | 7.5                          | 129                     |            |           | .16<br>12 |          | .00      | 1.11                                               |           | .05      |          | --  |                      |           |             | 0.2   |  |
| 03/06/73                                              | 5050           |                    | 10.2      | 48.2F | 7.6                          | 142                     | --         | --        | --        | --       | --       | --                                                 | --        | --       | --       | --  | --                   |           |             | 96AF  |  |
| 1315                                                  | 5050           | 10600              | 88        | 9.0C  |                              |                         |            |           |           |          |          |                                                    |           |          |          |     | --                   |           |             |       |  |
| 04/03/73                                              | 5050           |                    | 10.0      | 50.0F | 7.6                          | 153                     | --         | --        | --        | --       | --       | --                                                 | --        | --       | --       | --  | --                   |           |             | 4AF   |  |
| 1320                                                  | 5050           | 5600               | 89        | 10.0C |                              |                         |            |           |           |          |          |                                                    |           |          |          |     | --                   |           |             |       |  |
| 05/23/73                                              | 5050           |                    | 8.9       | 66.2F | 7.6                          | 165                     | --         | --        | --        | --       | --       | --                                                 | --        | --       | --       | --  | --                   |           |             | 3AF   |  |
| 1145                                                  | 5050           | 1000               | 96        | 19.0C |                              |                         |            |           |           |          |          |                                                    |           |          |          |     | --                   |           |             |       |  |
| 06/20/73                                              | 5050           |                    | 9.8       | 73.4F | 8.1                          | 235                     | --         | --        | --        | --       | --       | --                                                 | --        | --       | --       | --  | --                   |           |             | 1AF   |  |
| 1320                                                  | 5050           | 220                | 114       | 23.0C |                              |                         |            |           |           |          |          |                                                    |           |          |          |     | --                   |           |             |       |  |
| 07/10/73                                              | 5050           |                    | 9.4       | 69.8F | 8.0                          | 272                     | --         | --        | --        | --       | --       | --                                                 | --        | --       | --       | --  | --                   |           |             | 1AF   |  |
| 1205                                                  | 5050           | 86                 | 105       | 21.0C |                              |                         |            |           |           |          |          |                                                    |           |          |          |     | --                   |           |             |       |  |
| 08/08/73                                              | 5050           |                    | 8.3       | 67.1F | 7.5                          | 279                     | --         | --        | --        | --       | --       | --                                                 | --        | --       | --       | --  | --                   |           |             | 0AF   |  |
| 0720                                                  | 5050           | 93                 | 90        | 19.5C |                              |                         |            |           |           |          |          |                                                    |           |          |          |     | --                   |           |             |       |  |
| 09/12/73                                              | 5050           |                    | 11.2      | 70.7F | 7.9                          | 299                     | --         | --        | --        | --       | --       | --                                                 | --        | --       | --       | --  | --                   |           |             | 1AF   |  |
| 1305                                                  | 5050           | 27                 | 126       | 21.5C |                              |                         |            |           |           |          |          |                                                    |           |          |          |     | --                   |           |             |       |  |
| F6 1329.50 EEL RIVER ABOVE OUTLET CREEK NEAR DOS RIOS |                |                    |           |       |                              |                         |            |           |           |          |          |                                                    |           |          |          |     |                      |           |             |       |  |
| 10/04/72                                              | 5050           |                    | 2.33      | 8.6 F | 7.8                          | 283                     | --         | --        | --        | --       | --       | --                                                 | --        | --       | --       | --  | --                   |           |             | 1AF   |  |
| 0915                                                  |                |                    | 9.0       | 18 C  |                              |                         |            |           |           |          |          |                                                    |           |          |          |     | --                   |           |             |       |  |
| 11/15/72                                              | 5050           |                    | 3.74      | 48.2F | 7.5                          | 144                     | --         | --        | 5.2       | --       | 0        | 77                                                 | --        | 3.2      | --       | .30 | --                   |           | 60          | 24A   |  |
| 0900                                                  | 5050           | 410                | 94        | 9.0C  | 7.7                          | 151                     |            |           | .23<br>16 |          | .00      | 1.26                                               |           | .09      |          | --  |                      |           |             | 0.3   |  |
| 12/06/72                                              | 5050           |                    | 2.94      | 37.4F | 7.6                          | 189                     | --         | --        | 6.9       | --       | 0        | 94                                                 | --        | 3.7      | --       | .30 | --                   |           | 82          | 6A    |  |
| 0925                                                  | 5050           | 118                | 94        | 3.0C  | 7.6                          | 197                     |            |           | .30<br>15 |          | .00      | 1.54                                               |           | .10      |          | --  |                      |           |             | 0.3   |  |
| 01/18/73                                              | 5050           |                    | 13.74     | 45.5F | 7.4                          | 86                      | --         | --        | 3.2       | --       | 0        | 48                                                 | --        | 4.8      | --       | .00 | --                   |           | 47          | 330A  |  |
| 0945                                                  | 5050           | 13300              | 101       | 7.5C  | 7.1                          | 92                      |            |           | .14<br>13 |          | .00      | .79                                                |           | .14      |          | --  |                      |           |             | 0.2   |  |
| 02/07/73                                              | 5050           |                    | 7.60      | 45.5F | 7.4                          | 111                     | --         | --        | --        | --       | --       | --                                                 | --        | --       | --       | --  | --                   |           |             | 120AF |  |
| 1040                                                  | 5050           | 3900               | 100       | 7.5C  |                              |                         |            |           |           |          |          |                                                    |           |          |          |     | --                   |           |             |       |  |

TABLE D-2 (Cont)

## MINERAL ANALYSES OF SURFACE WATER

| DATE<br>TIME     | SAMPLER<br>LAB | G.H.<br>D<br>DEPTH | DO<br>SAT                                  | TEMP           | FIELD<br>LABORATORY<br>PH EC | MINERAL CONSTITUENTS IN    |    |                  |    |          |                  |     |                 |           |      | MILLIGRAMS PER LITER    |    |            |             |      | MILLIGRAMS PER LITER |  |  |  |  | TURB<br>SAR |
|------------------|----------------|--------------------|--------------------------------------------|----------------|------------------------------|----------------------------|----|------------------|----|----------|------------------|-----|-----------------|-----------|------|-------------------------|----|------------|-------------|------|----------------------|--|--|--|--|-------------|
|                  |                |                    |                                            |                |                              | MILLIEQUIVALENTS PER LITER |    |                  |    |          |                  |     |                 |           |      | PERCENT REACTANCE VALUE |    |            |             |      |                      |  |  |  |  |             |
|                  |                |                    |                                            |                |                              | CA                         | MG | NA               | K  | CO3      | HCO3             | SO4 | CL              | NO3       |      | B                       | F  | TDS<br>SUM | TH<br>NCH   |      |                      |  |  |  |  |             |
| .....            |                |                    |                                            |                |                              |                            |    |                  |    |          |                  |     |                 |           |      |                         |    |            |             |      |                      |  |  |  |  |             |
| F6               |                | 1329.50            | EEL RIVER ABOVE OUTLET CREEK NEAR DOS RIOS |                |                              |                            |    |                  |    |          |                  |     | CONTINUED       |           |      |                         |    |            |             |      |                      |  |  |  |  |             |
| 03/07/73<br>0850 | 5050<br>5050   | 6.41<br>2700       | 10.3<br>89                                 | 45.5F<br>7.5C  | 7.4<br>123                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      | -- |            |             | 28AF |                      |  |  |  |  |             |
| 04/04/73<br>0940 | 5050<br>5050   | 910                | 10.5<br>94                                 | 48.2F<br>9.0C  | 7.4<br>145                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      | -- |            |             | 6AF  |                      |  |  |  |  |             |
| 05/23/73<br>1700 | 5050<br>5050   | 61                 | 9.6<br>114                                 | 72.5F<br>22.5C | 8.2<br>218                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      | -- |            |             | 1AF  |                      |  |  |  |  |             |
| 06/21/73<br>0825 | 5050<br>5050   | 20                 | 7.5<br>90                                  | 73.4F<br>23.0C | 8.0<br>225                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      | -- |            |             | 0AF  |                      |  |  |  |  |             |
| 07/11/73<br>0730 | 5050<br>5050   | 9.0                | 8.3<br>99                                  | 73.4F<br>23.0C | 8.0<br>240                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      | -- |            |             | 0AF  |                      |  |  |  |  |             |
| 08/08/73<br>1030 | 5050<br>5050   | 23                 | 9.2<br>112                                 | 75.2F<br>24.0C | 8.0<br>189<br>7.9<br>191     | --                         | -- | 6.3<br>.27<br>14 | -- | 0<br>.00 | 103<br>1.69      | --  | 2.7<br>.08      | --        | .30  | --                      |    | 84         | 0A<br>0.3   |      |                      |  |  |  |  |             |
| 09/13/73<br>0720 | 5050<br>5050   | 4E                 | 8.6<br>97                                  | 68.0F<br>20.0C | 7.8<br>239                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      |    |            | 0AF         |      |                      |  |  |  |  |             |
| F6               |                | 1350.00            | OUTLET CREEK NEAR LONGVALE                 |                |                              |                            |    |                  |    |          |                  |     |                 |           |      |                         |    |            |             |      |                      |  |  |  |  |             |
| 10/04/72<br>0845 | 5050<br>5050   | 1.30<br>4.0        | 8.7                                        |                | 7.9<br>291<br>7.9<br>290     | --                         | -- | 15<br>.65<br>22  | -- | 0<br>.00 | 133<br>2.18      | --  | 18<br>.51       | --        | 2.20 | --                      |    | 115        | 1A<br>0.6   |      |                      |  |  |  |  |             |
| 11/15/72<br>0815 | 5050<br>5050   | 3.33<br>449        | 10.7<br>95                                 | 48.2F<br>9.0C  | 7.3<br>93<br>7.2<br>100      | --                         | -- | 4.2<br>.18<br>19 | -- | 0<br>.00 | 47<br>.77        | --  | 2.9<br>.08      | --        | .20  | --                      |    | 39         | 58A<br>0.3  |      |                      |  |  |  |  |             |
| 12/06/72<br>0845 | 5050<br>5050   | 2.71<br>213        | 12.2<br>93                                 | 37.4F<br>3.0C  | 7.4<br>130<br>7.3<br>135     | --                         | -- | 6.1<br>.27<br>21 | -- | 0<br>.00 | 62<br>1.02       | --  | 5.3<br>.15      | --        | .40  | --                      |    | 52         | 9A<br>0.4   |      |                      |  |  |  |  |             |
| 01/18/73<br>0900 | 5050<br>5050   | 8.40<br>2700       | 10.8<br>94                                 | 46.4F<br>8.0C  | 6.9<br>57<br>6.8<br>58       | --                         | -- | 2.8<br>.12<br>18 | -- | 0<br>.00 | 29<br>.48        | --  | 5.6<br>.16      | --        | .00  | --                      |    | 28         | 120A<br>0.2 |      |                      |  |  |  |  |             |
| 02/07/73<br>1015 | 5050<br>5050   | 4.78<br>1250       | 10.9<br>97                                 | 48.2F<br>9.0C  | 7.2<br>88<br>7.1<br>90       | --                         | -- | 4.2<br>.18<br>20 | -- | 0<br>.00 | 45<br>.74        | --  | 2.6<br>.07      | --        | .10  | --                      |    | 35         | 22A<br>0.3  |      |                      |  |  |  |  |             |
| 03/07/73<br>0825 | 5050<br>5050   | 3.09<br>406        | 10.4<br>93                                 | 48.2F<br>9.0C  | 7.2<br>94                    | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      |    |            | 28AF        |      |                      |  |  |  |  |             |
| 04/04/73<br>0910 | 5050<br>5050   | 3.64<br>643        | 10.6<br>95                                 | 48.2F<br>9.0C  | 7.4<br>119                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      |    |            | 5AF         |      |                      |  |  |  |  |             |
| 05/23/73<br>1720 | 5050<br>5050   | 1.48<br>19         | 11.0<br>124                                | 68.0F<br>20.0C | 8.2<br>216                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      |    |            | 1AF         |      |                      |  |  |  |  |             |
| 06/21/73<br>0755 | 5050<br>5050   | 1.25<br>6.0        | 6.9<br>81                                  | 71.6F<br>22.0C | 8.0<br>257                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      |    |            | 1AF         |      |                      |  |  |  |  |             |
| 07/11/73<br>0710 | 5050<br>5050   | 1.07<br>2.0        | 7.0<br>80                                  | 68.9F<br>20.5C | 7.9<br>269                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      |    |            | 1AF         |      |                      |  |  |  |  |             |
| 08/08/73<br>1015 | 5050<br>5050   | 0.98<br>1.0        | 9.7<br>116                                 | 73.4F<br>23.0C | 8.0<br>294                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      |    |            | 1AF         |      |                      |  |  |  |  |             |
| 09/13/73<br>0655 | 5050<br>5050   | 0.96<br>1.0        | 9.0<br>96                                  | 62.6F<br>17.0C | 8.0<br>310                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      |    |            | 0AF         |      |                      |  |  |  |  |             |
| F6               |                | 3009.01            | EEL RIVER MIDDLE FORK AT DOS RIOS          |                |                              |                            |    |                  |    |          |                  |     |                 |           |      |                         |    |            |             |      |                      |  |  |  |  |             |
| 10/04/72<br>1000 | 5050<br>5050   | 7.81<br>23         | 9.4<br>101                                 | 63.5F<br>17.5C | 8.0<br>339                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      |    |            | 0AF         |      |                      |  |  |  |  |             |
| 11/15/72<br>0930 | 5050<br>5050   | 9.89<br>1220       | 11.5<br>97                                 | 44.6F<br>7.0C  | 7.5<br>155<br>7.8<br>168     | --                         | -- | 4.2<br>.18<br>11 | -- | 0<br>.00 | 81<br>1.33       | --  | 2.0<br>.06      | --        | .10  | --                      |    | 74         | 22A<br>0.2  |      |                      |  |  |  |  |             |
| 12/06/72<br>1015 | 5050<br>5050   | 8.74<br>440        | 13.1<br>98                                 | 36.5F<br>2.5C  | 7.4<br>160                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      |    |            | 5AF         |      |                      |  |  |  |  |             |
| 01/18/73<br>1030 | 5050<br>5050   | 15.44<br>19900     | 11.9<br>101                                | 44.6F<br>7.0C  | 7.7<br>103<br>7.4<br>115     | --                         | -- | 2.7<br>.12<br>10 | -- | 0<br>.00 | 61<br>1.00<br>91 | --  | 3.7<br>.10<br>9 | .2<br>.00 | .00  | --                      |    | 54         | 600A<br>0.2 |      |                      |  |  |  |  |             |
| 02/07/73<br>1130 | 5050<br>5050   | 11.38<br>4800      | 11.6<br>99                                 | 45.0F<br>7.2C  | 7.6<br>148                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      |    |            | 160AF       |      |                      |  |  |  |  |             |
| 03/07/73<br>0930 | 5050<br>5050   | 11.29<br>2750      | 11.5<br>95                                 | 42.8F<br>6.0C  | 7.9<br>161                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      |    |            | 62AF        |      |                      |  |  |  |  |             |
| 04/04/73<br>1005 | 5050<br>5050   | 10.68<br>2140      | 11.0<br>95                                 | 46.4F<br>8.0C  | 7.6<br>155                   | --                         | -- | --               | -- | --       | --               | --  | --              | --        | --   | --                      |    |            | 29AF        |      |                      |  |  |  |  |             |

TABLE D-2 (cont)

## MINERAL ANALYSES OF SURFACE WATER

| DATE<br>TIME     | SAMPLER<br>LAB | G.H.<br>O<br>DEPTH | DO<br>SAT   | TEMP                              | FIELD            |            | MINERAL CONSTITUENTS IN |    |                  |    |          | MILLIGRAMS PER LITER<br>MILLIEQUIVALENTS PER LITER |     |                  |                |    | MILLIGRAMS PER LITER |            |           |             |      |
|------------------|----------------|--------------------|-------------|-----------------------------------|------------------|------------|-------------------------|----|------------------|----|----------|----------------------------------------------------|-----|------------------|----------------|----|----------------------|------------|-----------|-------------|------|
|                  |                |                    |             |                                   | LABORATORY<br>PH | EC         | CA                      | MG | NA               | K  | CO3      | PERCENT REACTANCE VALUE                            |     |                  |                | B  | F                    | TDS<br>SUM | TH<br>NCH | TURB<br>SAR |      |
|                  |                |                    |             |                                   |                  |            |                         |    |                  |    |          | HCO3                                               | SO4 | CL               | NO3            |    |                      |            |           |             | SI02 |
| . . . . .        |                |                    |             |                                   |                  |            |                         |    |                  |    |          |                                                    |     |                  |                |    |                      |            |           |             |      |
| F6               |                | 3009.01            |             | EEL RIVER MIDDLE FORK AT DOS RIOS |                  |            |                         |    |                  |    |          |                                                    |     | CONTINUED        |                |    |                      |            |           |             |      |
| 05/23/73<br>1420 | 5050<br>5050   | 9.06<br>1010       | 9.5<br>103  | 64.4F<br>18.0C                    | 7.6              | 132        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 4AF         |      |
| 06/21/73<br>0850 | 5050<br>5050   | 7.07<br>175        | 8.7<br>99   | 68.9F<br>20.5C                    | 8.0              | 223        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 1AF         |      |
| 07/11/73<br>0805 | 5050<br>5050   | 6.53<br>53         | 9.4<br>107  | 68.9F<br>20.5C                    | 8.1              | 266        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 0AF         |      |
| 08/08/73<br>1110 | 5050<br>5050   | 6.02<br>1.0        | 10.0<br>121 | 75.2F<br>24.0C                    | 8.2              | 288        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 0AF         |      |
| 09/13/73<br>0750 | 5050<br>5050   | 6.14<br>12         | 10.2<br>110 | 64.4F<br>18.0C                    | 7.9              | 279        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 0AF         |      |
| F6               |                | 3050.00            |             | MILL CREEK NEAR COVELO            |                  |            |                         |    |                  |    |          |                                                    |     |                  |                |    |                      |            |           |             |      |
| 11/15/72<br>1030 | 5050<br>5050   |                    | 11.0<br>93  | 43.7F<br>6.5C                     | 7.4<br>7.8       | 158<br>169 | --                      | -- | 5.4<br>.23<br>14 | -- | 0<br>.00 | 82<br>1.34<br>94                                   | --  | 2.7<br>.08<br>6  | .7<br>.01<br>1 |    | .10<br>--            | --         | 72        | 13A<br>0.3  |      |
| 12/06/72<br>1115 | 5050<br>5050   |                    | 12.3<br>95  | 37.4F<br>3.0C                     | 7.5<br>7.8       | 160<br>270 | --                      | -- | 8.7<br>.38<br>14 | -- | 0<br>.00 | 141<br>2.31                                        | --  | 6.1<br>.17       | --             |    | .10<br>--            | --         | 118       | 0A<br>0.3   |      |
| 01/18/73<br>1130 | 5050<br>5050   |                    | 10.6<br>92  | 45.5F<br>7.5C                     | 7.2<br>7.0       | 90<br>93   | --                      | -- | 3.0<br>.13<br>11 | -- | 0<br>.00 | 51<br>.84<br>83                                    | --  | 6.1<br>.17<br>17 | .1<br>.00      |    | .10<br>--            | --         | 51        | 340A<br>0.2 |      |
| 02/07/73<br>1215 | 5050<br>5050   |                    | 10.4<br>94  | 48.2F<br>9.0C                     | 7.3              | 154        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 28AF        |      |
| 03/07/73<br>1030 | 5050<br>5050   |                    | 10.8<br>90  | 42.8F<br>6.0C                     | 7.4              | 180        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 16AF        |      |
| 04/04/73<br>1100 | 5050<br>5050   |                    | 10.0<br>93  | 50.9F<br>10.5C                    | 7.4              | 223        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 3AF         |      |
| 05/23/73<br>1510 | 5050<br>5050   |                    | 8.5<br>104  | 75.2F<br>24.0C                    | 7.8              | 370        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 1AF         |      |
| 06/21/73<br>0945 | 5050<br>5050   |                    | 7.0<br>84   | 73.4F<br>23.0C                    | 7.6              | 378        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 1AF         |      |
| F6               |                | 3200.00            |             | BLACK BUTTE RIVER NEAR COVELO     |                  |            |                         |    |                  |    |          |                                                    |     |                  |                |    |                      |            |           |             |      |
| 10/04/72<br>1115 | 5050           | 12.84<br>56        | 10.5<br>120 | 68 F<br>20 C                      | 8.0              | 325        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 0AF         |      |
| 11/15/72<br>1145 | 5050<br>5050   | 13.71<br>136       | 11.4<br>97  | 43.7F<br>6.5C                     | 7.6<br>7.8       | 176<br>182 | --                      | -- | 3.9<br>.17<br>10 | -- | 0<br>.00 | 78<br>1.28                                         | --  | 1.0<br>.03       | --             |    | .10<br>--            | --         | 80        | 8A<br>0.2   |      |
| 12/06/72<br>1300 | 5050<br>5050   | 13.26<br>90        | 13.0<br>99  | 36.5F<br>2.5C                     | 7.4<br>7.6       | 165<br>168 | --                      | -- | 3.8<br>.17<br>10 | -- | 0<br>.00 | 76<br>1.25                                         | --  | 2.0<br>.06       | --             |    | .10<br>--            | --         | 74        | 2A<br>0.2   |      |
| 01/18/73<br>1230 | 5050<br>5050   | 16.24<br>3010      | 12.0<br>98  | 41.0F<br>5.0C                     | 7.6<br>7.2       | 104<br>116 | --                      | -- | 2.4<br>.10<br>8  | -- | 0<br>.00 | 55<br>.90                                          | --  | 3.7<br>.10       | --             |    | .00<br>--            | --         | 56        | 500A<br>0.1 |      |
| 02/07/73<br>1315 | 5050<br>5050   | 13.36<br>600       | 11.5<br>98  | 43.7F<br>6.5C                     | 7.6              | 142        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 60AF        |      |
| 03/07/73<br>1115 | 5050<br>5050   | 13.17<br>480       | 11.2<br>91  | 40.1F<br>4.5C                     | 7.4              | 161        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 35AF        |      |
| 04/04/73<br>1145 | 5050<br>5050   | 13.10<br>380       | 10.8<br>94  | 45.5F<br>7.5C                     | 7.5              | 146        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 17AF        |      |
| 05/23/73<br>1610 | 5050<br>5050   | 12.52<br>150       | 9.0<br>97   | 62.6F<br>17.0C                    | 7.6              | 129        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 2AF         |      |
| 06/21/73<br>1035 | 5050<br>5050   | 11.65<br>26        | 8.3<br>97   | 69.8F<br>21.0C                    | 8.1              | 204        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 1AF         |      |
| 07/11/73<br>0920 | 5050<br>5050   | 11.45<br>18        | 9.3<br>110  | 70.7F<br>21.5C                    | 8.1              | 241        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 1AF         |      |
| 08/08/73<br>1220 | 5050<br>5050   | 11.20<br>10        | 8.8<br>111  | 77.0F<br>25.0C                    | 8.0              | 272        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 0AF         |      |
| 09/13/73<br>0855 | 5050<br>5050   | 11.44<br>3.0       | 10.0<br>110 | 64.4F<br>18.0C                    | 7.9              | 290        | --                      | -- | --               | -- | --       | --                                                 | --  | --               | --             | -- | --                   | --         |           | 1AF         |      |

TABLE D-2 (Cont)

## MINERAL ANALYSES OF SURFACE WATER

| DATE<br>TIME | SAMPLER<br>LAB | G.H.<br>O<br>DEPTH                        | OO<br>SAT | TEMP  | FIELD            |     | MINERAL CONSTITUTENTS IN |    |     |    |     | MILLIGRAMS PER LITER<br>MILLIEQUIVALENTS PER LITER<br>PERCENT REACTANCE VALUE |     |     |     |     | MILLIGRAMS PER LITER |            |           |             |  |
|--------------|----------------|-------------------------------------------|-----------|-------|------------------|-----|--------------------------|----|-----|----|-----|-------------------------------------------------------------------------------|-----|-----|-----|-----|----------------------|------------|-----------|-------------|--|
|              |                |                                           |           |       | LABORATORY<br>PH | EC  | CA                       | MG | NA  | K  | CO3 | HCO3                                                                          | SO4 | CL  | NO3 | B   | F                    | TOS<br>SUM | TH<br>NCH | TURB<br>SAW |  |
|              |                |                                           |           |       |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| .....        |                |                                           |           |       |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| F6           |                | 4100.00 EEL RIVER SOUTH FORK NEAR MIRANDA |           |       |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 10/03/72     | 5050           | 3.72                                      | 11.6      | 70 F  | 8.1              | 255 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | --         | 0AF       |             |  |
| 1415         |                | 90                                        | 130       | 21 C  |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 11/14/72     | 5050           | 7.29                                      | 10.4      | 50.9F | 7.4              | 127 | --                       | -- | 5.4 | -- | 0   | 63                                                                            | --  | 3.7 | --  | .10 | --                   | 52         | 90A       |             |  |
| 1430         | 5050           | 2790                                      | 94        | 10.5C | 7.7              | 131 |                          |    | .23 |    | .00 | 1.03                                                                          |     | .10 |     |     |                      | 0.3        |           |             |  |
|              |                |                                           |           |       |                  |     |                          |    | 18  |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 12/05/72     | 5050           | 5.36                                      | 12.7      | 44.6F | 7.8              | 159 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 6AF        |           |             |  |
| 1345         | 5050           | 720                                       | 105       | 7.0C  |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 01/17/73     | 5050           | 13.93                                     | 11.0      | 48.2F | 7.4              | 90  | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 540AF      |           |             |  |
| 1345         | 5050           | 20200                                     | 96        | 9.0C  |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 02/06/73     | 5050           | 9.77                                      | 10.7      | 50.0F | 7.3              | 107 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 210AF      |           |             |  |
| 1700         | 5050           | 7700                                      | 95        | 10.0C |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 03/06/73     | 5050           | 8.18                                      | 10.2      | 50.0F | 7.3              | 112 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 80AF       |           |             |  |
| 1350         | 5050           | 4280                                      | 91        | 10.0C |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 04/03/73     | 5050           | 6.71                                      | 10.3      | 51.8F | 7.3              | 125 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 16AF       |           |             |  |
| 1400         | 5050           | 1860                                      | 94        | 11.0C |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 05/23/73     | 5050           | 4.48                                      | 11.5      | 67.1F | 8.2              | 192 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 0AF        |           |             |  |
| 1220         | 5050           |                                           | 125       | 19.5C |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 06/20/73     | 5050           | 4.14                                      | 11.1      | 76.1F | 8.7              | 208 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 1AF        |           |             |  |
| 1400         | 5050           | 142                                       | 133       | 24.5C |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 07/10/73     | 5050           | 3.93                                      | 11.6      | 71.6F | 8.6              | 229 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 1AF        |           |             |  |
| 1245         | 5050           | 110                                       | 133       | 22.0C |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 08/08/73     | 5050           | 3.72                                      | 7.0       | 68.9F | 8.2              | 209 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 1AF        |           |             |  |
| 0845         | 5050           | 49                                        | 78        | 20.5C |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 09/12/73     | 5050           | 3.90                                      | 14.2      | 69.8F | 8.2              | 223 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 1AF        |           |             |  |
| 1340         | 5050           | 85                                        | 159       | 21.0C |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| F6           |                | 5279.00 VAN DUZEN RIVER NEAR BRIDGEVILLE  |           |       |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 10/03/72     | 5050           | 4.64                                      | 9.9       | 62.6F | 7.8              | 259 | --                       | -- | 7.0 | -- | 0   | 126                                                                           | --  | 4.7 | --  | .10 | --                   | 116        | 0A        |             |  |
| 1145         | 5050           | 34                                        | 103       | 17.0C | 7.9              | 263 |                          |    | .30 |    | .00 | 2.07                                                                          |     | .13 |     |     |                      | 0.3        |           |             |  |
|              |                |                                           |           |       |                  |     |                          |    | 11  |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 11/14/72     | 5050           | 8.91                                      | 11.2      | 47.3F | 7.4              | 120 | --                       | -- | 3.4 | -- | 0   | 58                                                                            | --  | 1.4 | --  | .10 | --                   | 56         | 90A       |             |  |
| 1200         | 5050           | 1330                                      | 97        | 8.5C  | 7.5              | 126 |                          |    | .15 |    | .00 | .95                                                                           |     | .04 |     |     |                      | 0.2        |           |             |  |
|              |                |                                           |           |       |                  |     |                          |    | 12  |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 12/05/72     | 5050           | 5.64                                      | 12.7      | 40.1F | 7.6              | 160 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 10AF       |           |             |  |
| 1130         | 5050           | 290                                       | 99        | 4.5C  |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 01/17/73     | 5050           | 9.78                                      | 11.8      | 44.6F | 7.4              | 90  | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 480AF      |           |             |  |
| 1130         | 5050           | 5420                                      | 98        | 7.0C  |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 02/06/73     | 5050           | 8.04                                      | 11.7      | 46.4F | 7.2              | 99  | --                       | -- | 3.0 | -- | 0   | 53                                                                            | --  | 1.1 | --  | .00 | --                   | 44         | 99A       |             |  |
| 1500         | 5050           | 3100                                      | 100       | 8.0C  | 7.4              | 102 |                          |    | .13 |    | .00 | .87                                                                           |     | .03 |     |     |                      | 0.2        |           |             |  |
|              |                |                                           |           |       |                  |     |                          |    | 13  |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 03/06/73     | 5050           | 6.69                                      | 11.0      | 45.5F | 7.3              | 112 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 78AF       |           |             |  |
| 1115         | 5050           | 1450                                      | 93        | 7.5C  |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 04/03/73     | 5050           | 6.10                                      | 11.0      | 46.4F | 7.4              | 116 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 15AF       |           |             |  |
| 1115         | 5050           | 930                                       | 94        | 8.0C  |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 05/23/73     | 5050           | 4.17                                      | 10.0      | 62.6F | 7.7              | 174 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 0AF        |           |             |  |
| 0945         | 5050           | 108                                       | 104       | 17.0C |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 06/20/73     | 5050           | 3.75                                      | 9.3       | 68.0F | 8.1              | 211 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 0AF        |           |             |  |
| 1120         | 5050           | 46                                        | 103       | 20.0C |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 07/10/73     | 5050           | 3.49                                      | 9.4       | 66.2F | 7.9              | 246 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 0AF        |           |             |  |
| 1020         | 5050           | 25                                        | 102       | 19.0C |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 08/07/73     | 5050           | 3.29                                      | 10.0      | 74.3F | 8.1              | 267 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 0AF        |           |             |  |
| 1625         | 5050           | 11                                        | 118       | 23.5C |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 09/12/73     | 5050           | 3.23                                      | 10.4      | 64.4F | 7.8              | 280 | --                       | -- | --  | -- | --  | --                                                                            | --  | --  | --  | --  | --                   | 0AF        |           |             |  |
| 1125         | 5050           | 8.0                                       | 111       | 18.0C |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| F7           |                | 1100.00 MATTOLE RIVER NEAR PETROLIA       |           |       |                  |     |                          |    |     |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 02/06/73     | 5050           | 8.26                                      | 10.8      | 50.9F | 7.2              | 105 | --                       | -- | 5.3 | -- | 0   | 50                                                                            | --  | 4.0 | --  | .00 | --                   | 40         | 130A      |             |  |
| 1245         | 5050           | 5320                                      | 97        | 10.5C | 7.2              | 106 |                          |    | .23 |    | .00 | .82                                                                           |     | .11 |     |     |                      | 0.4        |           |             |  |
|              |                |                                           |           |       |                  |     |                          |    | 22  |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |
| 08/07/73     | 5050           | 3.20                                      | 12.7      | 73.4F | 8.1              | 227 | --                       | -- | 8.4 | -- | 0   | 108                                                                           | --  | 4.0 | --  | .10 | --                   | 101        | 0A        |             |  |
| 1350         | 5050           | 30                                        | 147       | 23.0C | 8.0              | 236 |                          |    | .37 |    | .00 | 1.77                                                                          |     | .11 |     |     |                      | 0.4        |           |             |  |
|              |                |                                           |           |       |                  |     |                          |    | 15  |    |     |                                                                               |     |     |     |     |                      |            |           |             |  |

TABLE D-2 (Cont)

## MINERAL ANALYSES OF SURFACE WATER

| DATE<br>TIME                      | SAMPLER<br>LAB | G.H.<br>O<br>DEPTH | DO<br>SAT | TEMP  | FIELD      |     | MINERAL CONSTITUENTS IN |    |     |    |     |      |      |     |    |     | MILLIGRAMS PER LITER<br>MILLIEQUIVALENTS PER LITER<br>PERCENT REACTANCE VALUE |     |      |     |      | MILLIGRAMS PER LITER |  |  |  |  |
|-----------------------------------|----------------|--------------------|-----------|-------|------------|-----|-------------------------|----|-----|----|-----|------|------|-----|----|-----|-------------------------------------------------------------------------------|-----|------|-----|------|----------------------|--|--|--|--|
|                                   |                |                    |           |       | LABORATORY | PH  | EC                      | CA | MG  | NA | K   | CO3  | HCO3 | SO4 | CL | NO3 | B                                                                             | F   | TDS  | TH  | TURB |                      |  |  |  |  |
|                                   |                |                    |           |       |            |     |                         |    |     |    |     |      |      |     |    |     | SiO2                                                                          | SUM | NCH  | SAR |      |                      |  |  |  |  |
| .....                             |                |                    |           |       |            |     |                         |    |     |    |     |      |      |     |    |     |                                                                               |     |      |     |      |                      |  |  |  |  |
| F7 5100.00 BEAR RIVER AT CAPETOWN |                |                    |           |       |            |     |                         |    |     |    |     |      |      |     |    |     |                                                                               |     |      |     |      |                      |  |  |  |  |
| 02/06/73                          | 5050           |                    | 11.0      | 48.2F | 7.2        | 148 | --                      | -- | 8.2 | -- | 0   | 56   | --   | 8.8 | -- | .10 | --                                                                            | 55  | 116A |     |      |                      |  |  |  |  |
| 1200                              | 5050           | 300E               | 95        | 9.0C  | 7.2        | 156 |                         |    | .36 |    | .00 | .92  |      | .25 |    | --  |                                                                               |     | 0.5  |     |      |                      |  |  |  |  |
|                                   |                |                    |           |       |            |     |                         |    | 25  |    |     |      |      |     |    |     |                                                                               |     |      |     |      |                      |  |  |  |  |
| 08/07/73                          | 5050           |                    | 11.4      | 71.6F | 8.0        | 278 | --                      | -- | 10  | -- | 0   | 120  | --   | 7.7 | -- | .10 | --                                                                            | 125 | 1A   |     |      |                      |  |  |  |  |
| 1305                              | 5050           | 20E                | 130       | 22.0C | 8.0        | 283 |                         |    | .44 |    | .00 | 1.97 |      | .22 |    | --  |                                                                               |     | 0.4  |     |      |                      |  |  |  |  |
|                                   |                |                    |           |       |            |     |                         |    | 15  |    |     |      |      |     |    |     |                                                                               |     |      |     |      |                      |  |  |  |  |

TABLE D-3

## MINOR ELEMENT ANALYSIS OF SURFACE WATER

Lab and Sampler Agency Codes

5000 - U. S. Geological Survey

5050 - Department of Water Resources

Abbreviations

|             |   |                                                                                 |
|-------------|---|---------------------------------------------------------------------------------|
| TIME        | - | Pacific Standard Time on a 24-hour clock                                        |
| DISCH       | - | Instantaneous discharge in cubic feet per second                                |
| EC          | - | Electrical conductance in micromhos at 25° Celsius                              |
| TEMP        | - | Water temperature at time of sampling in degrees Fahrenheit (F) and Celsius (C) |
| PH          | - | Measure of acidity (<7) or alkalinity (>7) of water                             |
| CHROM (ALL) | - | All chromium                                                                    |
| CHROM (HEX) | - | Hexavalent chromium                                                             |
| D           | - | Dissolved                                                                       |
| T           | - | Total                                                                           |

TABLE D-3  
MINOR ELEMENT ANALYSIS OF SURFACE WATER

| DATE<br>TIME                                          | SAMP<br>LAB | DEPTH | DISCH<br>EC | TEMP<br>PH | ARSENIC | CONSTITUENTS<br>BARIUM<br>CADMIUM | IN MILLIGRAMS PER LITER<br>CHROM (ALL)<br>CHROM (HEX) | COPPER<br>IRON | LEAD<br>MANGANESE | MERCURY<br>SELENIUM | SILVER<br>ZINC |
|-------------------------------------------------------|-------------|-------|-------------|------------|---------|-----------------------------------|-------------------------------------------------------|----------------|-------------------|---------------------|----------------|
| F2 1050.00 SHASTA RIVER NEAR YREKA                    |             |       |             |            |         |                                   |                                                       |                |                   |                     |                |
| 03/13/73                                              | 5050        |       |             | 8.0C       |         | --                                | --                                                    | 0.00 T         | 0.01 T            | --                  | --             |
| 1405                                                  | 5050        |       |             | 8.2        | 0.00 T  | 0.00 T                            | --                                                    | 0.24 T         | 0.02 T            | --                  | 0.01 T         |
| 09/07/73                                              | 5050        |       |             | 18.0C      |         | --                                | --                                                    | 0.00 D         | 0.00 D            | --                  | --             |
| 1115                                                  | 5050        | 675   |             | 8.3        | --      | 0.00 D                            | --                                                    | 0.04 D         | 0.00 D            | --                  | 0.00 D         |
| F2 5250.00 SCOTT RIVER NEAR FORT JONES                |             |       |             |            |         |                                   |                                                       |                |                   |                     |                |
| 03/13/73                                              | 5050        |       |             | 7.0C       |         | --                                | --                                                    | 0.00 T         | 0.01 T            | --                  | --             |
| 1645                                                  | 5050        |       |             | 7.5        | 0.00 T  | 0.00 T                            | --                                                    | 0.22 T         | 0.02 T            | --                  | 0.01 T         |
| F3 1100.00 KLAMATH RIVER NEAR KLAMATH                 |             |       |             |            |         |                                   |                                                       |                |                   |                     |                |
| 03/05/73                                              | 5050        |       |             | 8.0C       |         | --                                | --                                                    | --             | --                | --                  | --             |
| 1515                                                  | 5050        | 152   |             | 7.5        | --      | --                                | --                                                    | 0.02 D         | --                | --                  | --             |
| 04/02/73                                              | 5050        |       |             | 9.0C       |         | --                                | --                                                    | --             | --                | --                  | --             |
| 1430                                                  | 5050        | 141   |             | 7.6        | --      | --                                | --                                                    | 0.02 D         | --                | --                  | --             |
| 05/22/73                                              | 5050        |       |             | 17.0C      |         | --                                | --                                                    | --             | --                | --                  | --             |
| 1435                                                  | 5000        | 119   |             | 7.5        | --      | --                                | --                                                    | 0.030 D        | --                | --                  | --             |
| 06/20/73                                              | 5050        |       |             | 18.0C      |         | --                                | --                                                    | --             | --                | --                  | --             |
| 0830                                                  | 5050        | 171   |             | 7.8        | --      | --                                | --                                                    | 0.010 D        | --                | --                  | --             |
| 07/09/73                                              | 5050        | 3020  |             | 21.0C      |         | --                                | --                                                    | --             | --                | --                  | --             |
| 1420                                                  | 5000        | 193   |             | 8.1        | --      | --                                | --                                                    | 0.010 D        | --                | --                  | --             |
| 08/07/73                                              | 5050        | 2750  |             | 20.0C      |         | --                                | --                                                    | --             | --                | --                  | --             |
| 0945                                                  | 5050        | 206   |             | 7.7        | --      | --                                | --                                                    | 0.010 D        | --                | --                  | --             |
| 09/12/73                                              | 5050        | 1900  |             | 18.0C      |         | --                                | --                                                    | --             | --                | --                  | --             |
| 0835                                                  | 5000        | 206   |             | 7.8        | --      | --                                | --                                                    | 0.01 D         | --                | --                  | --             |
| F3 1430.00 KLAMATH RIVER NEAR SEIAD VALLEY            |             |       |             |            |         |                                   |                                                       |                |                   |                     |                |
| 03/13/73                                              | 5050        |       |             | 7.0C       |         | --                                | --                                                    | 0.00 T         | 0.01 T            | --                  | --             |
| 1545                                                  | 5050        |       |             | 7.9        | 0.00 T  | 0.00 T                            | --                                                    | 0.35 T         | 0.02 T            | --                  | 0.03 T         |
| F3 1470.00 KLAMATH RIVER ABOVE HAMBURG RESERVOIR SITE |             |       |             |            |         |                                   |                                                       |                |                   |                     |                |
| 03/13/73                                              | 5050        |       |             | 7.0C       |         | --                                | --                                                    | 0.00 T         | 0.02 T            | --                  | --             |
| 1450                                                  | 5050        |       |             | 7.7        | 0.00 T  | 0.00 T                            | --                                                    | 0.44 T         | 0.03 T            | --                  | 0.01 T         |
| F3 1599.01 KLAMATH RIVER BELOW IRON GATE DAM          |             |       |             |            |         |                                   |                                                       |                |                   |                     |                |
| 03/13/73                                              | 5050        |       |             | 7.0C       |         | --                                | --                                                    | 0.00 T         | 0.01 T            | --                  | --             |
| 1330                                                  | 5050        |       |             | 7.4        | 0.00 T  | 0.00 T                            | --                                                    | 0.45 T         | 0.03 T            | --                  | 0.01 T         |
| F4 1640.00 TRINITY RIVER AT LEWISTON                  |             |       |             |            |         |                                   |                                                       |                |                   |                     |                |
| 09/19/73                                              | 5050        |       |             | 9.0C       |         | --                                | --                                                    | 0.00 D         | 0.01 D            | --                  | --             |
| 1005                                                  | 5050        | 90    |             | 7.1        | --      | 0.00 D                            | --                                                    | 0.04 D         | 0.00 D            | --                  | 0.00 D         |
| F6 1100.00 EEL RIVER AT SCOTIA                        |             |       |             |            |         |                                   |                                                       |                |                   |                     |                |
| 03/06/73                                              | 5050        |       |             | 10.0C      |         | --                                | --                                                    | --             | --                | --                  | --             |
| 1215                                                  |             | 152   |             | 7.4        | --      | --                                | --                                                    | 0.04 D         | --                | --                  | --             |
| 04/03/73                                              | 5050        |       |             | 12.0C      |         | --                                | --                                                    | --             | --                | --                  | --             |
| 1215                                                  | 5050        | 148   |             | 7.4        | --      | --                                | --                                                    | 0.05 D         | --                | --                  | --             |
| 05/23/73                                              | 5050        |       |             | 19.0C      |         | --                                | --                                                    | --             | --                | --                  | --             |
| 1050                                                  | 5000        | 187   |             | 7.9        | --      | --                                | --                                                    | 0.09 D         | --                | --                  | --             |
| 06/20/73                                              | 5050        |       |             | 27.5C      |         | --                                | --                                                    | --             | --                | --                  | --             |
| 1215                                                  | 5050        | 254   |             | 8.6        | --      | --                                | --                                                    | 0.020 D        | --                | --                  | --             |
| 07/10/73                                              | 5050        | 169   |             | 21.0C      |         | --                                | --                                                    | --             | --                | --                  | --             |
| 1115                                                  | 5000        | 282   |             | 8.1        | --      | --                                | --                                                    | 0.010 D        | --                | --                  | --             |
| 08/08/73                                              | 5050        | 110   |             | 19.0C      |         | --                                | --                                                    | --             | --                | --                  | --             |
| 0655                                                  | 5050        | 296   |             | 7.9        | --      | --                                | --                                                    | 0.010 D        | --                | --                  | --             |
| 09/12/73                                              | 5050        |       |             | 18.0C      |         | --                                | --                                                    | --             | --                | --                  | --             |
| 1215                                                  | 5000        | 312   |             | 7.9        | --      | --                                | --                                                    | 0.00 D         | --                | --                  | --             |



TABLE D-3 (Cont)  
SUPPLEMENTAL MINOR ELEMENT ANALYSIS OF SURFACE WATER

| DATE<br>TIME                          | SAMP<br>LAB | DEPTH | DISCH<br>EC | TEMP<br>PH | ALUMINUM | CONSTITUENTS IN MILLIGRAMS PER LITER<br>ANTIMONY<br>BERYLLIUM | BISMUTH<br>COBALT | GALLIUM<br>GERMANIUM | LITHIUM<br>MOLYBDENUM | NICKEL<br>STRONTIUM | TITANIUM<br>VANADIUM |
|---------------------------------------|-------------|-------|-------------|------------|----------|---------------------------------------------------------------|-------------------|----------------------|-----------------------|---------------------|----------------------|
| F3 1100.00 KLAMATH RIVER NEAR KLAMATH |             |       |             |            |          |                                                               |                   |                      |                       |                     |                      |
| 03/05/73                              | 5050        |       |             | 8.0C       |          | --                                                            | --                | --                   | 0.00                  | n                   | --                   |
| 1515                                  | 5050        |       | 152         | 7.5        | --       | --                                                            | --                | --                   | --                    | 0.08                | D                    |
| 04/02/73                              | 5050        |       |             | 9.0C       |          | --                                                            | --                | --                   | 0.00                  | n                   | --                   |
| 1430                                  | 5050        |       | 141         | 7.6        | --       | --                                                            | --                | --                   | --                    | 0.11                | D                    |
| 05/22/73                              | 5050        |       |             | 17.0C      |          | --                                                            | --                | --                   | 0.00                  | D                   | --                   |
| 1435                                  | 5000        |       | 119         | 7.5        | --       | --                                                            | --                | --                   | --                    | 0.080               | D                    |
| 06/20/73                              | 5050        |       |             | 18.0C      |          | --                                                            | --                | --                   | 0.00                  | D                   | --                   |
| 0820                                  | 5050        |       | 171         | 7.8        | --       | --                                                            | --                | --                   | --                    | 0.0130              | D                    |
| 07/20/73                              | 5050        |       | 3020        | 21.0C      |          | --                                                            | --                | --                   | 0.00                  | n                   | --                   |
| 1420                                  | 5000        |       | 193         | 8.1        | --       | --                                                            | --                | --                   | --                    | 0.0150              | n                    |
| 08/07/73                              | 5050        |       | 2750        | 20.0C      |          | --                                                            | --                | --                   | 0.00                  | n                   | --                   |
| 0945                                  | 5050        |       | 206         | 7.7        | --       | --                                                            | --                | --                   | --                    | 0.0140              | D                    |
| 09/12/73                              | 5050        |       | 1900        | 18.0C      |          | --                                                            | --                | --                   | 0.00                  | D                   | --                   |
| 0835                                  | 5000        |       | 206         | 7.8        | --       | --                                                            | --                | --                   | --                    | 0.01                | D                    |
| F6 1100.00 EEL RIVER AT SCOTIA        |             |       |             |            |          |                                                               |                   |                      |                       |                     |                      |
| 03/06/73                              | 5050        |       |             | 10.0C      |          | --                                                            | --                | --                   | 0.00                  | n                   | --                   |
| 1215                                  |             |       | 152         | 7.4        | --       | --                                                            | --                | --                   | --                    | 0.17                | D                    |
| 04/03/73                              | 5050        |       |             | 12.0C      |          | --                                                            | --                | --                   | 0.00                  | n                   | --                   |
| 1215                                  | 5050        |       | 148         | 7.4        | --       | --                                                            | --                | --                   | --                    | 0.20                | D                    |
| 05/23/73                              | 5050        |       |             | 19.0C      |          | --                                                            | --                | --                   | 0.00                  | n                   | --                   |
| 1050                                  | 5000        |       | 187         | 7.9        | --       | --                                                            | --                | --                   | --                    | 0.0290              | D                    |
| 06/20/73                              | 5050        |       |             | 27.5C      |          | --                                                            | --                | --                   | 0.00                  | n                   | --                   |
| 1215                                  | 5050        |       | 254         | 8.6        | --       | --                                                            | --                | --                   | --                    | 0.0380              | D                    |
| 07/10/73                              | 5050        |       | 169         | 21.0C      |          | --                                                            | --                | --                   | 0.00                  | n                   | --                   |
| 1115                                  | 5000        |       | 282         | 8.1        | --       | --                                                            | --                | --                   | --                    | 0.0430              | D                    |
| 08/08/73                              | 5050        |       | 110         | 19.0C      |          | --                                                            | --                | --                   | 0.00                  | n                   | --                   |
| 0655                                  | 5050        |       | 296         | 7.9        | --       | --                                                            | --                | --                   | --                    | 0.0430              | D                    |
| 09/12/73                              | 5050        |       |             | 18.0C      |          | --                                                            | --                | --                   | 0.00                  | n                   | --                   |
| 1215                                  | 5000        |       | 312         | 7.9        | --       | --                                                            | --                | --                   | --                    | 0.048               | D                    |

## TABLE D-4

### PESTICIDES IN SURFACE WATER

All samples were collected and analyzed for pesticides by the Department of Water Resources (5050).

All samples were analyzed for two groups of pesticides, chlorinated organic compounds and organic phosphorus compounds. All pesticides detected are included in Table D-4. Other pesticides in these groups were absent or below detectable levels.

#### Pesticides

BHC - Benzene hexachloride

DDT - Dichloro diphenyl trichloroethane

ppDDD - Para para isomer of dichloro diphenyl  
dichloroethane

ppDDT - Para para isomer of dichloro diphenyl  
trichloroethane

When two pesticides are reported together with a slash mark separating them (ppDDE/Dieldrin, Simazine/Atrazine, etc.), the reported concentration is an undifferentiated total of the two. Either of the two pesticides could make up the entire total.

TABLE D-4

| PESTICIDES IN SURFACE WATER<br>COMPOUNDS REPORTED IN NANOGRAMS/LITER |              |              |             |                       |                                             |          |                    |          |               |
|----------------------------------------------------------------------|--------------|--------------|-------------|-----------------------|---------------------------------------------|----------|--------------------|----------|---------------|
| DATE<br>TIME                                                         | SAMP<br>LAB  | TEMP<br>EC   | DO<br>PH    | G.H. DEP<br>DISCHARGE | CHLORINATED HYDROCARBON                     |          | ORGANIC PHOSPHORUS |          | OTHER         |
|                                                                      |              |              |             |                       |                                             |          |                    |          |               |
|                                                                      |              | F2 1050.00   |             |                       | SHASTA RIVER NEAR YREKA                     |          |                    |          |               |
| 03/13/73<br>1405                                                     | 5050<br>5050 | 8.0C<br>8.2  | 8.8<br>8.2  | 3.48                  | NONE                                        | DETECTED | NONE               | DETECTED |               |
| 05/16/73<br>1015                                                     | 5050<br>5050 | 21.0C<br>660 | 8.8<br>8.3  | 3.10                  | 100                                         | UNKNOWN  | NONE               | DETECTED |               |
|                                                                      |              | F2 1055.00   |             |                       | SHASTA RIVER ABOVE YREKA CREEK              |          |                    |          |               |
| 05/16/73<br>1220                                                     | 5050<br>5050 | 21.0C<br>715 | 8.8<br>8.0  |                       | 75                                          | UNKNOWN  | NONE               | DETECTED |               |
|                                                                      |              | F2 1056.00   |             |                       | YREKA CREEK ABOVE SHASTA RIVER              |          |                    |          |               |
| 05/16/73<br>1200                                                     | 5050<br>5050 | 20.5C<br>595 | 8.8<br>8.3  |                       | 70                                          | UNKNOWN  | NONE               | DETECTED |               |
|                                                                      |              | F2 1151.00   |             |                       | SHASTA RIVER ABOVE LITTLE SHASTA RIVER      |          |                    |          |               |
| 05/16/73<br>0900                                                     | 5050<br>5050 | 18.5C<br>615 | 7.8<br>7.7  |                       | 50                                          | UNKNOWN  | NONE               | DETECTED |               |
|                                                                      |              | F2 1200.00   |             |                       | LITTLE SHASTA RIVER NEAR BALL MOUNTAIN ROAD |          |                    |          |               |
| 05/16/73<br>0815                                                     | 5050<br>5050 | 14.0C<br>135 | 9.1<br>7.5  |                       | NONE                                        | DETECTED | NONE               | DETECTED |               |
|                                                                      |              | F2 1399.00   |             |                       | SHASTA RIVER BELOW DWINNELL RESERVOIR       |          |                    |          |               |
| 05/16/73<br>0730                                                     | 5050<br>5050 | 13.5C<br>295 | 8.0<br>7.5  | 3.0                   | 15                                          | DIELDRIN | 40                 | UNKNOWN  | NONE DETECTED |
|                                                                      |              | F2 5250.00   |             |                       | SCOTT RIVER NEAR FORT JONES                 |          |                    |          |               |
| 03/13/73<br>1645                                                     | 5050<br>5050 | 7.0C<br>7.5  | 10.5<br>7.5 | 6.25                  | NONE                                        | DETECTED | NONE               | DETECTED |               |
|                                                                      |              | F3 1430.00   |             |                       | KLAMATH RIVER NEAR SEIAD VALLEY             |          |                    |          |               |
| 03/13/73<br>1545                                                     | 5050<br>5050 | 7.0C<br>7.9  | 11.1<br>7.9 |                       | NONE                                        | DETECTED | NONE               | DETECTED |               |
|                                                                      |              | F3 1470.00   |             |                       | KLAMATH RIVER ABOVE HAMBURG RESERVOIR SITE  |          |                    |          |               |
| 03/13/73<br>1450                                                     | 5050<br>5050 | 7.0C<br>7.7  | 10.7<br>7.7 |                       | NONE                                        | DETECTED | NONE               | DETECTED |               |
|                                                                      |              | F3 1599.01   |             |                       | KLAMATH RIVER BELOW IRON GATE DAM           |          |                    |          |               |
| 03/13/73<br>1330                                                     | 5050<br>5050 | 7.0C<br>7.4  | 10.2<br>7.4 |                       | NONE                                        | DETECTED | NONE               | DETECTED |               |

TABLE D-5 NUTRIENT ANALYSIS OF SURFACE WATER

Lab and Sampler Agency Codes

- 5000 - U. S. Geological Survey  
5050 - Department of Water Resources

Abbreviations

- TIME - Pacific Standard Time on a 24-hour clock.  
G.H. - Instantaneous gage height in feet above an established datum.  
Q - Instantaneous discharge measured in cubic feet per second (cfs). "E" indicates the value has been estimated.  
TEMP - Water temperature in degrees Fahrenheit (F) or Celsius (C).  
TURB - Jackson Turbidity Units measured with a Hellige Turbidimeter (E) or a Hach Nephelometer (A).  
PH - Measure of acidity or alkalinity of water.  
EC - Electrical conductance in micromhos at 25° C.  
HCO<sub>3</sub> - Bicarbonate  
CO<sub>3</sub> - Carbonate

Nitrogen Series as N

- NO<sub>2</sub> - Unfiltered nitrite  
NH<sub>3</sub> - Unfiltered ammonia  
NO<sub>3</sub> - Unfiltered nitrate  
ORG N - Organic nitrogen  
DIS ORG N - Dissolved organic nitrogen  
NH<sub>3</sub> + ORG N - Ammonia plus organic nitrogen

Phosphorus Series as P

- DIS A.H.PO<sub>4</sub> - Dissolved acid hydrolyzable phosphate  
D O-PO<sub>4</sub> - Dissolved orthophosphate  
T O-PO<sub>4</sub> - Total orthophosphate  
D TOT P - Dissolved total phosphorus  
TOT P - Total phosphorus

TABLE D-5

| NUTRIENT ANALYSIS OF SURFACE WATER                    |             |                |               |                           |             |               |            |                    |     |                                               |        |          |        |            |                |        |                |
|-------------------------------------------------------|-------------|----------------|---------------|---------------------------|-------------|---------------|------------|--------------------|-----|-----------------------------------------------|--------|----------|--------|------------|----------------|--------|----------------|
| DATE<br>TIME                                          | SAMP<br>LAB | G.H.<br>DISCH. | TEMP<br>DEPTH | FIELD<br>LABORATORY<br>PH | FIELD<br>EC | TURB<br>F-CO2 | CACO3<br>P | LAB<br>HCO3<br>CO3 | NH3 | NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER |        |          |        |            |                |        |                |
|                                                       |             |                |               |                           |             |               |            |                    |     | NO2<br>NO3                                    | F<br>U | ORG<br>N | F<br>U | (NH3<br>N) | D15<br>A.M.P04 | F<br>U | H3PO4<br>H3PO4 |
| F2 1050.00 SHASTA RIVER NEAR YREKA                    |             |                |               |                           |             |               |            |                    |     |                                               |        |          |        |            |                |        |                |
| 03/13/73                                              | 5050        |                | 8.0C          | 8.2                       |             |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.16   | --             |
| 1405                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.03                                          | --     | 0.2      | --     |            |                | --     | 0.17           |
| 09/07/73                                              | 5050        | 2.66           | 18.0C         | 8.3                       | 675         |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.17   | --             |
| 1115                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.02                                          | --     | 0.6      | --     |            |                | --     | 0.18           |
| F2 5250.00 SCOTT RIVER NEAR FORT JONES                |             |                |               |                           |             |               |            |                    |     |                                               |        |          |        |            |                |        |                |
| 03/13/73                                              | 5050        |                | 7.0C          | 7.5                       |             |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.01   | --             |
| 1645                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.30                                          | --     | 0.1      | --     |            |                | --     | 0.01           |
| F3 1100.00 KLAMATH RIVER NEAR KLAMATH                 |             |                |               |                           |             |               |            |                    |     |                                               |        |          |        |            |                |        |                |
| 02/05/73                                              | 5050        |                | 7.5C          | 7.4                       | 141         |               |            |                    |     | --                                            | --     | .        |        |            |                | --     | --             |
| 1430                                                  | 5000        |                |               |                           |             |               |            |                    | --  | 0.22                                          | --     | --       | --     |            |                | --     | 0.24           |
| 03/05/73                                              | 5050        |                | 8.0C          | 7.5                       | 152         |               |            |                    |     | --                                            | --     | .        |        |            |                | --     | --             |
| 1515                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.12                                          | --     | --       | --     |            |                | --     | 0.12           |
| 04/02/73                                              | 5050        |                | 9.0C          | 7.6                       | 141         |               |            |                    |     | --                                            | --     | .        |        |            |                | --     | --             |
| 1430                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.03                                          | --     | --       | --     |            |                | --     | 0.08           |
| 05/22/73                                              | 5050        |                | 17.0C         | 7.5                       | 119         |               |            |                    |     | --                                            | --     | .        |        |            |                | --     | --             |
| 1435                                                  | 5000        |                |               |                           |             |               |            |                    | --  | 0.00                                          | --     | --       | --     |            |                | --     | 0.03           |
| 06/20/73                                              | 5050        |                | 18.0C         | 7.8                       | 171         |               |            |                    |     | --                                            | --     | .        |        |            |                | --     | --             |
| 0830                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.00                                          | --     | --       | --     |            |                | --     | 0.02           |
| 07/09/73                                              | 5050        |                | 21.0C         | 8.1                       | 193         | 3A            |            |                    |     | --                                            | --     | .        |        |            |                | --     | --             |
| 1420                                                  | 5000        | 3020           |               |                           |             |               |            |                    | --  | 0.00                                          | --     | --       | --     |            |                | --     | 0.04           |
| 08/07/73                                              | 5050        |                | 20.0C         | 7.7                       | 206         | 1A            |            |                    |     | --                                            | --     | .        |        |            |                | --     | --             |
| 0945                                                  | 5050        | 2750           |               |                           |             |               |            |                    | --  | 0.00                                          | --     | --       | --     |            |                | --     | 0.06           |
| 09/12/73                                              | 5050        | 4.26           | 18.0C         | 7.8                       | 206         |               |            |                    |     | --                                            | --     | .        |        |            |                | --     | --             |
| 0835                                                  | 5000        | 1900           |               |                           |             |               |            |                    | --  | 0.01                                          | --     | --       | --     |            |                | --     | 0.09           |
| F3 1430.00 KLAMATH RIVER NEAR SEIAD VALLEY            |             |                |               |                           |             |               |            |                    |     |                                               |        |          |        |            |                |        |                |
| 03/13/73                                              | 5050        |                | 7.0C          | 7.9                       |             |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.10   | --             |
| 1545                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.77                                          | --     | 0.5      | --     |            |                | --     | 0.12           |
| 09/07/73                                              | 5050        |                | 18.0C         | 8.4                       | 208         |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.13   | --             |
| 0910                                                  | 5050        | 850 F          |               |                           |             |               |            |                    | --  | 0.05                                          | --     | --       | --     |            |                | --     | --             |
| F3 1470.00 KLAMATH RIVER ABOVE HAMBURG RESERVOIR SITE |             |                |               |                           |             |               |            |                    |     |                                               |        |          |        |            |                |        |                |
| 01/24/73                                              | 5050        |                | 2.5C          | 7.6                       | 215         |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.12   | --             |
| 1000                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.86                                          | --     | --       | --     |            |                | --     | --             |
| 03/13/73                                              | 5050        |                | 7.0C          | 7.7                       |             |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.12   | --             |
| 1450                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.86                                          | --     | 0.6      | --     |            |                | --     | 0.15           |
| F3 1599.01 KLAMATH RIVER BELOW IRON GATE DAM          |             |                |               |                           |             |               |            |                    |     |                                               |        |          |        |            |                |        |                |
| 03/13/73                                              | 5050        |                | 7.0C          | 7.4                       |             |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.14   | --             |
| 1330                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 1.1                                           | --     | 0.8      | --     |            |                | --     | 0.17           |
| 06/14/73                                              | 5050        |                | 18.0C         | 8.0                       | 214         | 1A            |            |                    |     | --                                            | --     | .        |        |            |                | 0.12   | --             |
| 0755                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.12                                          | --     | --       | --     |            |                | --     | --             |
| 09/07/73                                              | 5050        |                | 17.0C         | 8.1                       | 180         |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.16   | --             |
| 0700                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.18                                          | --     | --       | --     |            |                | --     | --             |
| F4 1080.00 TRINITY RIVER AT HOOPA                     |             |                |               |                           |             |               |            |                    |     |                                               |        |          |        |            |                |        |                |
| 01/16/73                                              | 5050        |                | 7.0C          | 7.5                       | 125         |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.01   | --             |
| 1030                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.07                                          | --     | --       | --     |            |                | --     | --             |
| 05/22/73                                              | 5050        |                | 15.0C         | 8.3                       | 126         | 4A            |            |                    |     | --                                            | --     | .        |        |            |                | 0.00   | --             |
| 0950                                                  | 5050        | 3100           |               |                           |             |               |            |                    | --  | 0.02                                          | --     | --       | --     |            |                | --     | --             |
| 09/11/73                                              | 5050        | 13.19          | 19.0C         | 8.0                       | 192         |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.00   | --             |
| 1005                                                  | 5050        | 470            |               |                           |             |               |            |                    | --  | 0.03                                          | --     | --       | --     |            |                | --     | --             |
| F4 1376.00 TRINITY RIVER NEAR BURNT RANCH             |             |                |               |                           |             |               |            |                    |     |                                               |        |          |        |            |                |        |                |
| 01/16/73                                              | 5050        |                | 6.5C          | 7.3                       | 111         |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.01   | --             |
| 0930                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.07                                          | --     | --       | --     |            |                | --     | --             |
| 09/11/73                                              | 5050        |                | 19.0C         | 7.8                       | 144         |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.00   | --             |
| 0910                                                  | 5050        | 283            |               |                           |             |               |            |                    | --  | 0.02                                          | --     | --       | --     |            |                | --     | --             |
| F4 1640.00 TRINITY RIVER AT LEWISTON                  |             |                |               |                           |             |               |            |                    |     |                                               |        |          |        |            |                |        |                |
| 05/22/73                                              | 5050        |                | 8.5C          | 7.1                       | 84          | 0A            |            |                    |     | --                                            | --     | .        |        |            |                | 0.01   | --             |
| 0715                                                  | 5050        | 150 E          |               |                           |             |               |            |                    | --  | 0.06                                          | --     | --       | --     |            |                | --     | --             |
| 09/19/73                                              | 5050        |                | 9.0C          | 7.1                       | 90          |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.00   | --             |
| 1005                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.01                                          | --     | 0.1      | --     |            |                | --     | 0.02           |
| 09/21/73                                              | 5050        | 3.24           | 10.0C         | 7.3                       | 90          |               |            |                    |     | --                                            | --     | .        |        |            |                | 0.01   | --             |
| 1400                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.00                                          | --     | 0.1      | --     |            |                | --     | 0.02           |
| F6 1100.00 EEL RIVER AT SCOTIA                        |             |                |               |                           |             |               |            |                    |     |                                               |        |          |        |            |                |        |                |
| 02/06/73                                              | 5050        |                | 9.0C          | 7.5                       | 115         |               |            |                    |     | --                                            | --     | .        |        |            |                | --     | --             |
| 1545                                                  | 5000        |                |               |                           |             |               |            |                    | --  | 0.05                                          | --     | --       | --     |            |                | --     | 0.44           |
| 03/06/73                                              | 5050        |                | 10.0C         | 7.4                       | 152         |               |            |                    |     | --                                            | --     | .        |        |            |                | --     | --             |
| 1215                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.04                                          | --     | --       | --     |            |                | --     | 0.17           |
| 04/03/73                                              | 5050        |                | 12.0C         | 7.4                       | 148         |               |            |                    |     | --                                            | --     | .        |        |            |                | --     | --             |
| 1215                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.04                                          | --     | --       | --     |            |                | --     | 0.08           |
| 05/23/73                                              | 5050        |                | 19.0C         | 7.9                       | 187         |               |            |                    |     | --                                            | --     | .        |        |            |                | --     | --             |
| 1050                                                  | 5000        |                |               |                           |             |               |            |                    | --  | 0.01                                          | --     | --       | --     |            |                | --     | 0.02           |
| 06/20/73                                              | 5050        |                | 27.5C         | 8.6                       | 254         |               |            |                    |     | --                                            | --     | .        |        |            |                | --     | --             |
| 1215                                                  | 5050        |                |               |                           |             |               |            |                    | --  | 0.00                                          | --     | --       | --     |            |                | --     | 0.00           |



TABLE D-5 (Cont)

| NUTRIENT ANALYSIS OF SURFACE WATER                    |             |                |               |                  |     |               |                |     |                  |             |      |            |                    |                                      |                |                    | NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER |  |         |  |  |  |  |  |  |  |
|-------------------------------------------------------|-------------|----------------|---------------|------------------|-----|---------------|----------------|-----|------------------|-------------|------|------------|--------------------|--------------------------------------|----------------|--------------------|-----------------------------------------------|--|---------|--|--|--|--|--|--|--|
| DATE<br>TIME                                          | SAMP<br>LAB | G.H.<br>DISCH. | TEMP<br>DEPTH | FIELD            |     | FIELD         |                | LAB | OF SURFACE WATER |             |      | NUTRIENT   |                    | CONSTITUENTS IN MILLIGRAMS PER LITER |                |                    |                                               |  | F TOT P |  |  |  |  |  |  |  |
|                                                       |             |                |               | LABORATORY<br>PH | EC  | TURB<br>F-CO2 | CAC03<br>CAC03 |     | P<br>T           | MC03<br>CO3 | NH3  | N02<br>N03 | F ORG N<br>U ORG N | F (NH3<br>U ORG N)                   | DIS<br>A.M.P04 | F H3P04<br>U H3P04 | F TOT P<br>U TOT P                            |  |         |  |  |  |  |  |  |  |
| F6 1100.00 EEL RIVER AT SCOTIA                        |             |                |               |                  |     |               |                |     |                  |             |      |            |                    |                                      |                |                    | CONTINUED                                     |  |         |  |  |  |  |  |  |  |
| 07/10/73                                              | 5050        |                | 21.0C         | 8.1              | 282 | 1A            |                |     |                  |             | --   | --         | --                 | .                                    |                | --                 | --                                            |  |         |  |  |  |  |  |  |  |
| 1115                                                  | 5000        | 169            |               |                  |     |               |                |     |                  | --          | 0.02 | --         | --                 | --                                   |                | --                 | 0.02                                          |  |         |  |  |  |  |  |  |  |
| 08/08/73                                              | 5050        |                | 19.0C         | 7.9              | 296 | 1A            |                |     |                  |             | --   | --         | --                 | .                                    |                | --                 | --                                            |  |         |  |  |  |  |  |  |  |
| 0655                                                  | 5050        | 110            |               |                  |     |               |                |     |                  | --          | 0.00 | --         | --                 | --                                   |                | --                 | 0.01                                          |  |         |  |  |  |  |  |  |  |
| 09/12/73                                              | 5050        | 10.06          | 18.0C         | 7.9              | 312 |               |                |     |                  |             | --   | --         | --                 | .                                    |                | --                 | --                                            |  |         |  |  |  |  |  |  |  |
| 1215                                                  | 5000        |                |               |                  |     |               |                |     |                  | --          | 0.01 | --         | --                 | --                                   |                | --                 | 0.15                                          |  |         |  |  |  |  |  |  |  |
| F6 1329.50 EEL RIVER ABOVE OUTLET CREEK NEAR DOS RIOS |             |                |               |                  |     |               |                |     |                  |             |      |            |                    |                                      |                |                    |                                               |  |         |  |  |  |  |  |  |  |
| 01/18/73                                              | 5050        | 13.74          | 7.5C          | 7.4              | 86  |               |                |     |                  |             | --   | --         | --                 | .                                    |                | 0.00               | --                                            |  |         |  |  |  |  |  |  |  |
| 0945                                                  | 5050        |                |               |                  |     |               |                |     |                  | --          | 0.07 | --         | --                 | --                                   |                | --                 | --                                            |  |         |  |  |  |  |  |  |  |
| 08/08/73                                              | 5050        |                | 24.0C         | 8.0              | 189 |               |                |     |                  |             | --   | --         | --                 | .                                    |                | 0.00               | --                                            |  |         |  |  |  |  |  |  |  |
| 1030                                                  | 5050        | 23             |               |                  |     |               |                |     |                  | --          | 0.03 | --         | --                 | --                                   |                | --                 | --                                            |  |         |  |  |  |  |  |  |  |
| F6 3009.01 EEL RIVER MIDDLE FORK AT DOS RIOS          |             |                |               |                  |     |               |                |     |                  |             |      |            |                    |                                      |                |                    |                                               |  |         |  |  |  |  |  |  |  |
| 01/18/73                                              | 5050        |                | 7.0C          | 7.7              | 103 |               |                |     |                  |             | --   | --         | --                 | .                                    |                | 0.00               | --                                            |  |         |  |  |  |  |  |  |  |
| 1030                                                  | 5050        |                |               |                  |     |               |                |     |                  | --          | 0.08 | --         | --                 | --                                   |                | --                 | --                                            |  |         |  |  |  |  |  |  |  |
| F6 3050.00 MILL CREEK NEAR COVELO                     |             |                |               |                  |     |               |                |     |                  |             |      |            |                    |                                      |                |                    |                                               |  |         |  |  |  |  |  |  |  |
| 01/18/73                                              | 5050        |                | 7.5C          | 7.2              | 90  |               |                |     |                  |             | --   | --         | --                 | .                                    |                | 0.01               | --                                            |  |         |  |  |  |  |  |  |  |
| 1130                                                  | 5050        |                |               |                  |     |               |                |     |                  | --          | 0.10 | --         | --                 | --                                   |                | --                 | --                                            |  |         |  |  |  |  |  |  |  |
| F6 3200.00 BLACK BUTTE RIVER NEAR COVELO              |             |                |               |                  |     |               |                |     |                  |             |      |            |                    |                                      |                |                    |                                               |  |         |  |  |  |  |  |  |  |
| 01/18/73                                              | 5050        | 16.24          | 5.0C          | 7.6              | 104 |               |                |     |                  |             | --   | --         | --                 | .                                    |                | 0.00               | --                                            |  |         |  |  |  |  |  |  |  |
| 1230                                                  | 5050        |                |               |                  |     |               |                |     |                  | --          | 0.05 | --         | --                 | --                                   |                | --                 | --                                            |  |         |  |  |  |  |  |  |  |



GROUND WATER BASINS, WATER QUALITY SAMPLES

## APPENDIX E

### GROUND WATER QUALITY

This appendix presents ground water quality data collected during the period from October 1, 1972, through September 30, 1973.

The data were collected from a number of major ground water sources in the North Coastal area in cooperation with local agencies. During the 1973 water year, 99 wells were sampled in 12 ground water basins.

At the time of field sampling, pH, specific conductance, and temperature measurements are made. The results are compared with measurements made in previous years. If a substantial change is noted, the samples are submitted to the laboratory for further analyses.

Laboratory analyses of ground waters are performed in accordance with "Standard Methods for the Examination of Water and Waste Water", 13th Edition, 1971.

The Region and Basin and State Well Numbering Systems are described in Appendix C, "Ground Water Measurements".

# TABLE E-1 MINERAL ANALYSES OF GROUND WATER

An explanation of column headings follows:

The LAB and SAMPLER agency code is as follows:

5050 - California Department of Water Resources

|                           |                                                                                                                                                                                                                                                                                                                               |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>TIME</u>               | - Pacific Standard Time on a 24-hour clock.                                                                                                                                                                                                                                                                                   |
| <u>TEMP</u>               | - Water temperature in degrees Fahrenheit or degrees Celsius. The computer prints out both.                                                                                                                                                                                                                                   |
| <u>PH LAB &amp; FIELD</u> | - Measure of acidity or alkalinity of water.                                                                                                                                                                                                                                                                                  |
| <u>EC LAB</u>             | - The electrical conductance in micromhos at 25° Celsius.                                                                                                                                                                                                                                                                     |
| <u>EC FIELD</u>           | - The electrical conductance in micromhos at time of field sampling.                                                                                                                                                                                                                                                          |
| <u>TDS</u>                | - Gravimetric determination of total dissolved solids at 180° Celsius.                                                                                                                                                                                                                                                        |
| <u>SUM</u>                | - Total dissolved solids determined by addition of analyzed constituents.                                                                                                                                                                                                                                                     |
| <u>TH</u>                 | - Total hardness.                                                                                                                                                                                                                                                                                                             |
| <u>NCH</u>                | - Noncarbonate hardness.                                                                                                                                                                                                                                                                                                      |
| <u>SAR</u>                | - Sodium adsorption ratio.                                                                                                                                                                                                                                                                                                    |
| <u>PERCENT REACTANCE</u>  |                                                                                                                                                                                                                                                                                                                               |
| <u>VALUE</u>              | - Determined by dividing the sum of the cations or anions in milliequivalents per liter into each constituent in milliequivalents per liter arriving at a percentage. For a partial analysis, an approximate value is determined by multiplying the electrical conductance by 0.01 and using that as the cation or anion sum. |

The MINERAL CONSTITUENTS are as follows:

|                  |               |                  |             |
|------------------|---------------|------------------|-------------|
| B                | - Boron       | K                | - Potassium |
| CA               | - Calcium     | MG               | - Magnesium |
| CL               | - Chloride    | NA               | - Sodium    |
| CO <sub>3</sub>  | - Carbonate   | NO <sub>3</sub>  | - Nitrate   |
| F                | - Fluoride    | SI0 <sub>2</sub> | - Silica    |
| HCO <sub>3</sub> | - Bicarbonate | SO <sub>4</sub>  | - Sulfate   |

TABLE E-1  
MINERAL ANALYSES OF GROUND WATER

| DATE<br>TIME     | SAMPLER<br>LAB | TEMP                 | FIELD<br>LABORATORY<br>PH EC | MINERAL CONSTITUENTS IN |            |              |                  |                  |                   |                |                  |                   |                         | MILLIGRAMS PER LITER<br>MILLIEQUIVALENTS PER LITER |                  |            |           | MILLIGRAMS PER LITER |          |     |  |
|------------------|----------------|----------------------|------------------------------|-------------------------|------------|--------------|------------------|------------------|-------------------|----------------|------------------|-------------------|-------------------------|----------------------------------------------------|------------------|------------|-----------|----------------------|----------|-----|--|
|                  |                |                      |                              | CA                      | MG         | NA           | K                | CO3              | HC03              | SO4            | CL               | NO3               | PERCENT REACTANCE VALUE | B                                                  | F                | TDS<br>SUM | TH<br>NCH | SAR                  |          |     |  |
| .....            |                |                      |                              |                         |            |              |                  |                  |                   |                |                  |                   |                         |                                                    |                  |            |           |                      |          |     |  |
| 1                |                | NORTH COASTAL REGION |                              |                         |            |              |                  |                  |                   |                |                  |                   |                         |                                                    |                  |            |           |                      |          |     |  |
| 1-01             |                | SMITH RIVER PLAIN    |                              |                         |            |              |                  |                  |                   |                |                  |                   |                         |                                                    |                  |            |           |                      |          |     |  |
| 09/23/73<br>1135 | 5050           | 16N/01W-02Q01        | H                            | 58.0F<br>14.4C          | 6.7        | 175          | --               | --               | --                | --             | --               | --                | --                      | --                                                 | --               | --         | --        | --                   |          |     |  |
| 09/24/73<br>1510 | 5050<br>5050   | 16N/01W-20H01        | H                            | 59.0F<br>15.0C          | 6.2        | 190<br>186   | --               | --               | --                | --             | --               | --                | 16<br>.45               | 16.0<br>.26                                        | --               | --         | --        | 59                   |          |     |  |
| 09/24/73<br>1530 | 5050<br>5050   | 16N/02W-13E01        | H                            | 65.0F<br>18.3C          | 6.5<br>8.0 | 560<br>563   | 50<br>2.50<br>44 | 18<br>1.48<br>26 | 38<br>1.65<br>29  | .8<br>.02      | 0<br>.00         | 221<br>3.62<br>64 | 22<br>.46<br>8          | 55<br>1.55<br>27                                   | .7<br>.01        | .00        | --        | 302<br>293           | 50<br>18 | 1.2 |  |
| 09/24/73<br>1220 | 5050           | 17N/01W-03E01        | H                            | 62.0F<br>16.7C          | 7.1        | 345          | --               | --               | --                | --             | --               | --                | --                      | --                                                 | --               | --         | --        | --                   | --       |     |  |
| 09/24/73<br>1200 | 5050           | 17N/01W-14C02        | H                            |                         | 6.7        | 200          | --               | --               | --                | --             | --               | --                | --                      | --                                                 | --               | --         | --        | --                   | --       |     |  |
| 09/24/73<br>1425 | 5050           | 18N/01W-05K01        | H                            | 59.0F<br>15.0C          | 6.1        | 175          | --               | --               | --                | --             | --               | --                | --                      | --                                                 | --               | --         | --        | --                   | --       |     |  |
| 09/24/73<br>1400 | 5050           | 18N/01W-17R04        | H                            | 63.0F<br>17.2C          | 6.8        | 300          | --               | --               | --                | --             | --               | --                | --                      | --                                                 | --               | --         | --        | --                   | --       |     |  |
| 09/24/73<br>1440 | 5050           | 18N/01W-26M01        | H                            | 62.0F<br>16.7C          | 6.3        | 125          | --               | --               | --                | --             | --               | --                | --                      | --                                                 | --               | --         | --        | --                   | --       |     |  |
| 09/24/73<br>1255 | 5050<br>5050   | 18N/01W-34M02        | H                            | 58.0F<br>14.4C          | 6.8<br>8.1 | 320<br>315   | 11<br>.55<br>16  | 33<br>2.71<br>79 | 3.0<br>.13<br>4   | .6<br>.02<br>1 | 0<br>.00         | 188<br>3.08<br>87 | 6.2<br>.13<br>4         | 4.8<br>.14<br>4                                    | 12.0<br>.19<br>5 | .00        | --        | 169<br>163           | 165<br>9 | 0.1 |  |
| 1-02             |                | KLAMATH RIVER BASIN  |                              |                         |            |              |                  |                  |                   |                |                  |                   |                         |                                                    |                  |            |           |                      |          |     |  |
| 08/15/73<br>1230 | 5050           | 46N/02F-15F01        | M                            | 58.0F<br>14.4C          | 7.1        | 170          | --               | --               | --                | --             | --               | --                | --                      | --                                                 | --               | --         | --        | --                   | --       |     |  |
| 08/15/73<br>1300 | 5050<br>5050   | 47N/02E-20C01        | M                            | 57.0F<br>13.9C          | 6.9        | 1350<br>1270 | --               | --               | --                | --             | --               | --                | --                      | 168<br>4.74                                        | 38.0<br>.61      | --         | --        | --                   | 449      |     |  |
| 1-03             |                | BUTTE VALLEY         |                              |                         |            |              |                  |                  |                   |                |                  |                   |                         |                                                    |                  |            |           |                      |          |     |  |
| 08/15/73<br>1115 | 5050           | 45N/01E-09C02        | M                            | 57.0F<br>13.9C          | 7.7        | 195          | --               | --               | --                | --             | --               | --                | --                      | --                                                 | --               | --         | --        | --                   | --       |     |  |
| 08/15/73<br>1400 | 5050<br>5050   | 47N/01F-06A02        | M                            | 52.0F<br>11.1C          | 8.0<br>8.7 | 1160<br>1030 | 16<br>.80<br>7   | 32<br>2.63<br>23 | 170<br>7.40<br>65 | 20<br>.51<br>4 | 40<br>1.33<br>11 | 521<br>8.54<br>74 | 35<br>.73<br>6          | 31<br>.87<br>8                                     | 6.0<br>.10<br>1  | .90        | --        | 649<br>607           | 174<br>0 | 5.6 |  |
| 08/16/73<br>0815 | 5050           | 47N/01E-06J01        | M                            | 55.0F<br>12.8C          | 8.0        | 1250         | --               | --               | --                | --             | --               | --                | --                      | --                                                 | --               | --         | --        | --                   | --       |     |  |
| 08/16/73<br>0955 | 5050<br>5050   | 47N/01E-07C02        | M                            | 60.0F<br>15.5C          | 8.1<br>8.6 | 690<br>727   | 20<br>1.00<br>13 | 22<br>1.81<br>23 | 106<br>4.61<br>60 | 12<br>.31<br>4 | 13<br>.43<br>6   | 342<br>5.61<br>72 | 31<br>.65<br>8          | 37<br>1.04<br>13                                   | 1.7<br>.03       | .10        | --        | 440<br>411           | 141<br>0 | 3.9 |  |
| 08/16/73<br>0945 | 5050           | 47N/01E-07C03        | M                            | 75.0F<br>23.9C          | 8.1        | 460          | --               | --               | --                | --             | --               | --                | --                      | --                                                 | --               | --         | --        | --                   | --       |     |  |
| 08/16/73<br>0835 | 5050<br>5050   | 47N/01E-08D01        | M                            | 57.0F<br>13.9C          | 7.7<br>8.6 | 775<br>830   | 22<br>1.10<br>12 | 16<br>1.32<br>15 | 145<br>6.31<br>70 | 12<br>.31<br>3 | 27<br>.90<br>10  | 427<br>7.00<br>77 | 22<br>.46<br>5          | 24<br>.68<br>8                                     | 1.4<br>.02       | .50        | --        | 537<br>480           | 120<br>0 | 5.7 |  |
| 08/16/73<br>0950 | 5050           | 47N/01E-32A01        | M                            | 68.0F<br>20.0C          | 8.1        | 220          | --               | --               | --                | --             | --               | --                | --                      | --                                                 | --               | --         | --        | --                   | --       |     |  |
| 08/15/73<br>1055 | 5050           | 45N/01W-33D01        | M                            | 65.0F<br>18.3C          | 7.0        | 110          | --               | --               | --                | --             | --               | --                | --                      | --                                                 | --               | --         | --        | --                   | --       |     |  |

TABLE E-1 (Cont)  
MINERAL ANALYSES OF GROUND WATER

| DATE<br>TIME                                   | SAMPLER<br>LAB |               | TEMP | FIELD<br>LABORATORY<br>PH EC | MINERAL CONSTITUENTS IN |            |                  |                  |                  |                 |                 |                   |                 |                 | MILLIGRAMS PER LITER<br>MILLIEQUIVALENTS PER LITER |      |    |            | MILLIGRAMS PER LITER |     |     |    | TDS<br>SUM | TH<br>NCH | SAR |
|------------------------------------------------|----------------|---------------|------|------------------------------|-------------------------|------------|------------------|------------------|------------------|-----------------|-----------------|-------------------|-----------------|-----------------|----------------------------------------------------|------|----|------------|----------------------|-----|-----|----|------------|-----------|-----|
|                                                |                |               |      |                              | CA                      | MG         | NA               | K                | CO3              | HCO3            | SO4             | CL                | NO3             | B               | F                                                  | SI02 |    |            |                      |     |     |    |            |           |     |
|                                                |                |               |      |                              |                         |            |                  |                  |                  |                 |                 |                   |                 |                 |                                                    |      |    |            |                      |     |     |    |            |           |     |
| 1<br>1-03 NORTH COASTAL REGION<br>BUTTE VALLEY |                |               |      |                              |                         |            |                  |                  |                  |                 |                 |                   |                 |                 |                                                    |      |    |            |                      |     |     |    |            |           |     |
| 08/06/73<br>1635                               | 5050           | 45N/02W-01P01 | M    | 50.0F<br>10.0C               | 6.8                     | 220        | --               | --               | --               | --              | --              | --                | --              | --              | --                                                 | --   | -- | --         | --                   | --  | --  | -- |            |           |     |
| 08/16/73<br>1030                               | 5050           | 46N/01W-02F01 | M    | 53.0F<br>11.7C               | 8.2                     | 410        | --               | --               | --               | --              | --              | --                | --              | --              | --                                                 | --   | -- | --         | --                   | --  | --  | -- |            |           |     |
| 08/16/73<br>1415                               | 5050           | 46N/01W-09R01 | M    | 57.0F<br>13.9C               | 8.4                     | 405        | --               | --               | --               | --              | --              | --                | --              | --              | --                                                 | --   | -- | --         | --                   | --  | --  | -- |            |           |     |
| 08/15/73<br>1340                               | 5050<br>5050   | 46N/01W-17B01 | M    | 53.0F<br>11.7C               | 8.2<br>8.6              | 385<br>378 | 20<br>1.00<br>24 | 18<br>1.48<br>36 | 36<br>1.57<br>38 | 4.2<br>.11<br>3 | 9.0<br>.30<br>7 | 215<br>3.52<br>86 | 6.1<br>.13<br>3 | 3.8<br>.11<br>3 | 1.1<br>.02                                         | .00  | -- | 220<br>204 | 123<br>0             | 1.4 |     |    |            |           |     |
| 08/16/73<br>1320                               | 5050           | 46N/01W-17G02 | M    | 62.0F<br>16.7C               | 8.1                     | 380        | --               | --               | --               | --              | --              | --                | --              | --              | --                                                 | --   | -- | --         | --                   | --  | --  | -- |            |           |     |
| 08/15/73<br>1210                               | 5050           | 46N/01W-17L01 | M    | 53.0F<br>11.7C               | 7.6                     | 485        | --               | --               | --               | --              | --              | --                | --              | --              | --                                                 | --   | -- | --         | --                   | --  | --  | -- |            |           |     |
| 08/16/73<br>1640                               | 5050<br>5050   | 46N/01W-29F01 | M    | 52.0F<br>11.1C               | 7.1<br>8.1              | 270<br>260 | 13<br>.65<br>23  | 19<br>1.56<br>56 | 11<br>.48<br>17  | 3.3<br>.08<br>3 | 0<br>.00        | 141<br>2.31<br>85 | 11<br>.23<br>8  | 2.8<br>.08<br>3 | 6.6<br>.11<br>4                                    | .00  | -- | 180<br>136 | 111<br>0             | 0.5 |     |    |            |           |     |
| 08/16/73<br>1620                               | 5050<br>5050   | 46N/01W-30001 | M    | 52.0F<br>11.1C               | 7.1<br>8.2              | 320<br>306 | --               | --               | 11<br>.48<br>15  | --              | 0<br>.00        | 146<br>2.39       | --              | 2.4<br>.07      | --                                                 | --   | -- | --         | --                   | 133 | 0.4 |    |            |           |     |
| 08/15/73<br>1745                               | 5050           | 46N/02W-13P01 | M    | 58.0F<br>14.4C               | 7.1                     | 460        | --               | --               | --               | --              | --              | --                | --              | --              | --                                                 | --   | -- | --         | --                   | --  | --  | -- |            |           |     |
| 08/16/73<br>1250                               | 5050           | 46N/02W-16A02 | M    | 50.0F<br>10.0C               | 8.0                     | 185        | --               | --               | --               | --              | --              | --                | --              | --              | --                                                 | --   | -- | --         | --                   | --  | --  | -- |            |           |     |
| 08/16/73<br>1500                               | 5050<br>5050   | 46N/02W-25R01 | M    | 52.0F<br>11.1C               | 7.1<br>8.1              | 400<br>385 | 23<br>1.15<br>28 | 26<br>2.14<br>53 | 14<br>.61<br>15  | 5.4<br>.14<br>3 | 0<br>.00        | 170<br>2.79<br>71 | 43<br>.90<br>23 | 3.1<br>.09<br>2 | 9.7<br>.16<br>4                                    | .00  | -- | 253<br>208 | 165<br>25            | 0.5 |     |    |            |           |     |
| 08/16/73<br>1455                               | 5050           | 46N/02W-25R03 | M    | 52.0F<br>11.1C               | 7.1                     | 325        | --               | --               | --               | --              | --              | --                | --              | --              | --                                                 | --   | -- | --         | --                   | --  | --  | -- |            |           |     |
| 08/16/73<br>1530                               | 5050<br>5050   | 46N/02W-26P01 | M    | 53.0F<br>11.7C               | 7.8<br>7.9              | 200<br>189 | 15<br>.75<br>37  | 9.7<br>.80<br>39 | 9.7<br>.42<br>21 | 2.3<br>.06<br>3 | 0<br>.00        | 116<br>1.90<br>96 | .3<br>.01<br>1  | 1.2<br>.03<br>2 | 1.8<br>.03<br>2                                    | .00  | -- | 128<br>97  | 77<br>0              | 0.5 |     |    |            |           |     |
| 08/16/73<br>1515                               | 5050<br>5050   | 46N/02W-26002 | M    | 52.0F<br>11.1C               | 7.1<br>8.0              | 320<br>283 | 15<br>.75<br>25  | 20<br>1.64<br>54 | 12<br>.52<br>17  | 4.5<br>.12<br>4 | 0<br>.00        | 157<br>2.57<br>86 | 10<br>.21<br>7  | 4.8<br>.14<br>5 | 4.6<br>.07<br>2                                    | .00  | -- | 190<br>148 | 119<br>0             | 0.5 |     |    |            |           |     |
| 08/16/73<br>1545                               | 5050           | 46N/02W-34B01 | M    | 53.0F<br>11.7C               | 8.1                     | 155        | --               | --               | --               | --              | --              | --                | --              | --              | --                                                 | --   | -- | --         | --                   | --  | --  | -- |            |           |     |
| 08/16/73<br>1605                               | 5050           | 46N/02W-36K01 | M    | 55.0F<br>12.8C               | 7.1                     | 350        | --               | --               | --               | --              | --              | --                | --              | --              | --                                                 | --   | -- | --         | --                   | --  | --  | -- |            |           |     |
| 08/16/73<br>1100                               | 5050<br>5050   | 47N/01W-23H02 | M    | 73.0F<br>22.8C               | 7.4<br>8.4              | 470<br>462 | 11<br>.55<br>12  | 18<br>1.48<br>32 | 55<br>2.39<br>52 | 8.5<br>.22<br>5 | 0<br>.00        | 199<br>3.26<br>72 | .0<br>.00       | 30<br>.85<br>19 | 25.0<br>.40<br>9                                   | .10  | -- | 290<br>245 | 102<br>0             | 2.4 |     |    |            |           |     |
| 08/16/73<br>0720                               | 5050           | 47N/02W-21H03 | M    | 62.0F<br>16.7C               | 7.2                     | 115        | --               | --               | --               | --              | --              | --                | --              | --              | --                                                 | --   | -- | --         | --                   | --  | --  | -- |            |           |     |
| 08/15/73<br>1545                               | 5050           | 48N/01W-28F01 | M    | 82.0F<br>27.8C               | 9.1                     | 200        | --               | --               | --               | --              | --              | --                | --              | --              | --                                                 | --   | -- | --         | --                   | --  | --  | -- |            |           |     |
| 08/15/73<br>1515                               | 5050<br>5050   | 48N/01W-28J03 | M    | 58.0F<br>14.4C               | 7.6<br>8.2              | 520<br>466 | --               | --               | --               | --              | 0<br>.00        | 251<br>4.11       | --              | 5.7<br>.16      | --                                                 | --   | -- | --         | --                   | 168 |     |    |            |           |     |

TABLE E-1 (Cont)  
MINERAL ANALYSES OF GROUND WATER

| DATE<br>TIME                        | SAMPLER<br>LAB | TEMP          | FIELD<br>LABORATORY<br>PH EC | MINFRAL CONSTITUENTS IN |            |              |                  |                    | MILLIGRAMS PER LITER<br>MILLIEQUIVALENTS PER LITER<br>PERCENT REFRACTANCE VALUE |                 |                  |                   |                 | MILLIGRAMS PER LITER |                    |            |            |           |      |
|-------------------------------------|----------------|---------------|------------------------------|-------------------------|------------|--------------|------------------|--------------------|---------------------------------------------------------------------------------|-----------------|------------------|-------------------|-----------------|----------------------|--------------------|------------|------------|-----------|------|
|                                     |                |               |                              | CA                      | MG         | NA           | K                | CO3                | HCO3                                                                            | SO4             | CL               | NO3               | R               | F                    | TOS<br>SUM         | TH<br>NCH  | SAR        |           |      |
|                                     |                |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 1 NORTH COASTAL REGION BUTTE VALLEY |                |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 1-03                                |                |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 08/15/73<br>1610                    | 5050           | 48N/01W-31M01 | M                            | 62.0F<br>16.7C          | 7.1<br>7.8 | 380<br>381   | --               | --                 | --                                                                              | --              | 0<br>.00         | 97<br>1.59<br>48  | --              | 17<br>.48<br>15      | 75.0<br>1.21<br>37 | --         | --         | 151       |      |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 08/15/73<br>1630                    | 5050           | 48N/01W-34R01 | M                            | 66.0F<br>18.9C          | 8.0        | 465          | --               | --                 | --                                                                              | --              | --               | --                | --              | --                   | --                 | --         | --         |           |      |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 08/15/73<br>1645                    | 5050           | 48N/01W-34G01 | M                            | 80.0F<br>26.6C          | 8.3<br>8.5 | 480<br>503   | --               | --                 | --                                                                              | --              | 9.0<br>.30       | 272<br>4.46       | --              | 12<br>.34            | --                 | --         | 67         |           |      |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 1-04 SHASTA VALLEY                  |                |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 42N/05W-20F01                       |                |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/23/73<br>1400                    | 5050           |               | M                            | 66.0F<br>18.9C          | 7.1<br>8.7 | 625<br>615   | 21<br>1.05<br>15 | 48<br>3.95<br>58   | 41<br>1.78<br>26                                                                | 1.6<br>.04<br>1 | 25<br>.83<br>12  | 294<br>4.82<br>72 | 10<br>.21<br>3  | 27<br>.76<br>11      | 2.2<br>.04<br>1    | 1.60<br>-- | 369<br>322 | 250<br>0  | 1.1  |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/23/73<br>1335                    | 5050           | 42N/05W-20J01 | M                            | 61.0F<br>16.1C          | 6.9        | 365          | --               | --                 | --                                                                              | --              | --               | --                | --              | --                   | --                 | --         | --         |           |      |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/23/73<br>1400                    | 5050           | 42N/06W-10J01 | M                            | 63.0F<br>17.2C          | 7.4<br>8.5 | 565<br>548   | --               | --                 | 3.6<br>.16<br>2                                                                 | --              | 15<br>.50        | 362<br>5.93       | --              | 5.1<br>.14           | --                 | --         | 326        | 0.1       |      |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/27/73<br>0715                    | 5050           | 43N/04W-07M01 | M                            | 70.0F<br>21.1C          | 6.8<br>8.5 | 1950<br>1720 | 14<br>.70<br>4   | 145<br>11.92<br>62 | 148<br>6.44<br>34                                                               | 5.5<br>.14<br>1 | 82<br>2.73<br>15 | 606<br>9.93<br>53 | 3.6<br>.07      | 213<br>6.01<br>32    | 1.6<br>.03         | 4.50<br>-- | 990<br>915 | 631<br>0  | 2.6  |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/24/73<br>1020                    | 5050           | 43N/05W-02C01 | M                            | 53.0F<br>11.7C          | 6.8        | 245          | --               | --                 | --                                                                              | --              | --               | --                | --              | --                   | --                 | --         | --         |           |      |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/27/73<br>0901                    | 5050           | 43N/06W-15L01 | M                            | 56.0F<br>13.3C          | 7.3<br>8.1 | 600<br>408   | 32<br>1.60<br>36 | 27<br>2.22<br>50   | 14<br>.61<br>14                                                                 | 1.4<br>.04<br>1 | 0<br>.00         | 247<br>4.05<br>91 | 9.9<br>.21<br>5 | 3.3<br>.09<br>2      | 5.5<br>.09<br>2    | .00<br>--  | 218<br>215 | 193<br>0  | 0.4  |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/23/73<br>1440                    | 5050           | 43N/06W-21R01 | M                            | 60.0F<br>15.5C          | 7.3        | 490          | --               | --                 | --                                                                              | --              | --               | --                | --              | --                   | --                 | --         | --         |           |      |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/24/73<br>0945                    | 5050           | 44N/05W-32C03 | M                            | 63.0F<br>17.2C          | 7.2        | 1010         | --               | --                 | --                                                                              | --              | --               | --                | --              | --                   | --                 | --         | --         |           |      |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/24/73<br>1000                    | 5050           | 44N/05W-34H01 | M                            | 58.0F<br>14.4C          | 7.0<br>8.2 | 760<br>774   | 51<br>2.54<br>30 | 42<br>3.45<br>41   | 53<br>2.31<br>27                                                                | 6.2<br>.16<br>2 | 0<br>.00         | 396<br>6.49<br>79 | 26<br>.54<br>7  | 29<br>.82<br>10      | 24.0<br>.39<br>5   | .50<br>--  | 498<br>426 | 299<br>0  | 1.3  |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/25/73<br>0926                    | 5050           | 44N/06W-15C01 | M                            | 66.0F<br>18.9C          | 7.3<br>8.2 | 590<br>427   | 31<br>1.55<br>35 | 22<br>1.81<br>41   | 23<br>1.00<br>23                                                                | .9<br>.02       | 0<br>.00         | 197<br>3.23<br>74 | 8.7<br>.18<br>4 | 27<br>.76<br>17      | 12.0<br>.19<br>4   | .30<br>--  | 253<br>222 | 167<br>7  | 0.8  |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/24/73<br>0905                    | 5050           | 44N/06W-22K01 | M                            | 64.0F<br>17.8C          | 7.2<br>8.4 | 425<br>437   | 49<br>2.45<br>52 | 18<br>1.48<br>32   | 16<br>.70<br>15                                                                 | 1.5<br>.04<br>1 | 2.0<br>.07<br>2  | 225<br>3.69<br>81 | 10<br>.21<br>5  | 13<br>.37<br>8       | 14.0<br>.23<br>5   | .10<br>--  | 258<br>234 | 195<br>9  | 0.5  |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/24/73<br>1340                    | 5050           | 45N/05W-06E01 | M                            | 71.0F<br>21.6C          | 8.0<br>8.6 | 910<br>922   | 8.9<br>.44<br>4  | 8.3<br>.68<br>7    | 203<br>8.83<br>88                                                               | 1.5<br>.04      | 18<br>.60<br>6   | 527<br>8.64<br>86 | .6<br>.01       | 27<br>.76<br>8       | .0<br>.00          | 7.30<br>-- | 578<br>534 | 56<br>0   | 11.8 |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/23/73<br>1205                    | 5050           | 45N/06W-19E01 | M                            | 82.0F<br>27.8C          | 7.7        | 340          | --               | --                 | --                                                                              | --              | --               | --                | --              | --                   | --                 | --         | --         |           |      |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/24/73<br>1430                    | 5050           | 45N/06W-22R01 | M                            | 61.0F<br>16.1C          | 8.2<br>8.5 | 505<br>500   | 5.8<br>.29<br>6  | 2.8<br>.23<br>4    | 108<br>4.70<br>90                                                               | .6<br>.02       | 7.0<br>.23<br>4  | 282<br>4.62<br>88 | 3.6<br>.07<br>1 | 11<br>.31<br>6       | .8<br>.01          | .60<br>--  | 324<br>279 | 26<br>0   | 9.2  |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/24/73<br>1600                    | 5050           | 45N/06W-27D02 | M                            | 59.0F<br>15.0C          | 8.0<br>8.4 | 540<br>522   | 35<br>1.75<br>32 | 27<br>2.22<br>40   | 34<br>1.48<br>27                                                                | 1.9<br>.05<br>1 | 7.0<br>.23<br>4  | 230<br>3.77<br>70 | 31<br>.65<br>12 | 18<br>.51<br>9       | 16.0<br>.26<br>5   | .00<br>--  | 326<br>283 | 198<br>0  | 1.1  |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/25/73<br>0720                    | 5050           | 45N/06W-30E01 | M                            | 66.0F<br>18.9C          | 7.4<br>8.0 | 420<br>440   | 38<br>1.90<br>42 | 19<br>1.56<br>35   | 23<br>1.00<br>22                                                                | .7<br>.02       | 0<br>.00         | 195<br>3.20<br>71 | 41<br>.85<br>19 | 8.1<br>.23<br>5      | 15.0<br>.24<br>5   | .10<br>--  | 260<br>241 | 174<br>13 | 0.8  |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 1-05 SCOTT RIVER VALLEY             |                |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 42N/09W-02B01                       |                |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |
| 07/26/73<br>1400                    | 5050           |               | M                            | 56.0F<br>13.3C          | 7.2<br>8.5 | 560<br>527   | 71<br>3.54<br>60 | 25<br>2.06<br>35   | 6.2<br>.27<br>5                                                                 | .7<br>.02       | 10<br>.33<br>6   | 276<br>4.52<br>79 | 13<br>.27<br>5  | 8.3<br>.23<br>4      | 21.0<br>.34<br>6   | .00<br>--  | 266<br>291 | 281<br>38 | 0.2  |
|                                     | 5050           |               |                              |                         |            |              |                  |                    |                                                                                 |                 |                  |                   |                 |                      |                    |            |            |           |      |

## MINERAL ANALYSES OF GROUND WATER

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TABLE E-1 (Cont)  
MINERAL ANALYSES OF GROUND WATER

| DATE<br>TIME            | SAMPLER<br>LAB | TEMP          | FIELD<br>LABORATORY<br>PH EC | MINERAL CONSTITUENTS IN |     |      |      | MILLIGRAMS PER LITER<br>MILLIEQUIVALENTS PER LITER |      |      |     | MILLIGRAMS PER LITER |      |      |            |           |     |     |
|-------------------------|----------------|---------------|------------------------------|-------------------------|-----|------|------|----------------------------------------------------|------|------|-----|----------------------|------|------|------------|-----------|-----|-----|
|                         |                |               |                              | CA                      | MG  | NA   | K    | CO3                                                | HCO3 | SO4  | CL  | NO3                  | B    | F    | TDS<br>SUM | TH<br>NCH | SAR |     |
|                         |                |               |                              |                         |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| .....                   |                |               |                              |                         |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 1 NORTH COASTAL REGION  |                |               |                              |                         |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 1-09 EUREKA PLAIN       |                |               |                              |                         |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 09/25/73<br>1500        | 5050           | 05N/01E-20001 | H                            | 57.0F                   | 6.5 | 265  | --   | --                                                 | --   | --   | --  | --                   | --   | --   | --         | --        |     |     |
|                         |                |               |                              | 13.9C                   |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 09/25/73<br>1310        | 5050           | 04N/01W-08P01 | H                            | 57.0F                   | 7.6 | 175  | --   | --                                                 | --   | 0    | 67  | --                   | 15   | --   | --         |           | 54  |     |
|                         |                |               |                              | 13.9C                   | 7.7 | 156  |      |                                                    | .00  | 1.10 |     | .42                  |      |      |            |           |     |     |
| 09/25/73<br>1200        | 5050           | 04N/01W-16M01 | H                            | 58.0F                   | 7.6 | 485  | --   | --                                                 | --   | --   | --  | --                   | --   | --   | --         |           |     |     |
|                         |                |               |                              | 14.4C                   |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 09/25/73<br>1325        | 5050           | 04N/01W-17801 | H                            | 55.0F                   | 7.2 | 180  | --   | --                                                 | --   | 0    | 66  | --                   | 14   | --   | --         |           | 55  |     |
|                         |                |               |                              | 12.8C                   | 7.6 | 166  |      |                                                    | .00  | 1.08 |     | .39                  |      |      |            |           |     |     |
| 09/25/73<br>1405        | 5050           | 05N/01W-29001 | H                            | 60.0F                   | 6.4 | 315  | 9.4  | 15                                                 | 22   | 2.7  | 0   | 81                   | 16   | 24   | 9.1        | .00       | 179 | 87  |
|                         |                |               |                              | 15.5C                   | 7.5 | 296  | .47  | 1.23                                               | .96  | .07  | .00 | 1.33                 | .33  | .68  | .15        | --        | 138 | 19  |
|                         |                |               |                              |                         |     |      | 17   | 45                                                 | 35   | 3    |     | 53                   | 13   | 27   | 6          |           |     |     |
| 1-10 EEL RIVER VALLEY   |                |               |                              |                         |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 09/25/73<br>0850        | 5050           | 02N/01W-07F01 | H                            | 54.0F                   | 7.1 | 430  | 32   | 27                                                 | 16   | 1.6  | 0   | 179                  | 53   | 20   | .6         | .00       | 246 | 192 |
|                         |                |               |                              | 12.2C                   | 7.9 | 442  | 1.60 | 2.22                                               | .70  | .04  | .00 | 2.93                 | 1.10 | .56  | .01        | --        | 238 | 45  |
|                         |                |               |                              |                         |     |      | 35   | 49                                                 | 15   | 1    |     | 64                   | 24   | 12   |            |           |     |     |
| 09/25/73<br>1120        | 5050           | 03N/01W-05K01 | H                            | 61.0F                   | 6.3 | 150  | --   | --                                                 | --   | --   | --  | --                   | 15   | --   | --         |           | 40  |     |
|                         |                |               |                              | 16.1C                   |     | 148  |      |                                                    |      |      |     |                      | .42  |      |            |           |     |     |
| 09/25/73<br>1100        | 5050           | 03N/01W-18A01 | H                            | 62.0F                   | 7.4 | 450  | --   | --                                                 | --   | --   | --  | --                   | --   | --   | --         |           |     |     |
|                         |                |               |                              | 16.7C                   |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 09/25/73<br>1300        | 5050           | 03N/02W-32001 | H                            | 55.0F                   | 7.1 | 1300 | 31   | 35                                                 | 182  | 3.9  | 0   | 231                  | 32   | 286  | 2.9        | .00       | 706 | 221 |
|                         |                |               |                              | 12.8C                   | 8.0 | 1340 | 1.55 | 2.88                                               | 7.92 | .10  | .00 | 3.79                 | .67  | 8.07 | .05        | --        | 686 | 32  |
|                         |                |               |                              |                         |     |      | 12   | 23                                                 | 64   | 1    |     | 30                   | 5    | 64   |            |           |     |     |
| 1-11 ROUND VALLEY       |                |               |                              |                         |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 09/18/73<br>1000        | 5050           | 22N/12W-06L02 | H                            | 58.0F                   | 7.4 | 395  | --   | --                                                 | --   | --   | --  | --                   | --   | --   | --         |           |     |     |
|                         |                |               |                              | 14.4C                   |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 09/18/73<br>1100        | 5050           | 22N/12W-19F01 | H                            | 60.0F                   | 6.9 | 460  | 30   | 39                                                 | 13   | .5   | 0   | 287                  | 28   | 3.2  | 2.3        | .00       | 248 | 235 |
|                         |                |               |                              | 15.5C                   | 8.3 | 473  | 1.50 | 3.21                                               | .57  | .01  | .00 | 4.70                 | .58  | .09  | .04        | --        | 257 | 1   |
|                         |                |               |                              |                         |     |      | 28   | 61                                                 | 11   |      |     | 87                   | 11   | 2    | 1          |           |     |     |
| 09/18/73<br>1020        | 5050           | 22N/13W-01J03 | H                            | 60.0F                   | 7.3 | 220  | --   | --                                                 | --   | --   | --  | --                   | 3.9  | --   | --         |           | 97  |     |
|                         |                |               |                              | 15.5C                   |     | 220  |      |                                                    |      |      |     |                      | .11  |      |            |           |     |     |
| 09/18/73<br>1040        | 5050           | 22N/13W-13A01 | H                            | 60.0F                   | 6.9 | 235  | --   | --                                                 | --   | --   | --  | --                   | --   | --   | --         |           |     |     |
|                         |                |               |                              | 15.5C                   |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 09/18/73<br>0835        | 5050           | 23N/12W-33L03 | H                            | 62.0F                   | 7.2 | 625  | --   | --                                                 | --   | --   | --  | --                   | --   | --   | --         |           |     |     |
|                         |                |               |                              | 16.7C                   |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 09/18/73<br>0855        | 5050           | 23N/13W-25P01 | H                            | 59.0F                   | 7.7 | 250  | --   | --                                                 | --   | --   | --  | --                   | --   | --   | --         |           |     |     |
|                         |                |               |                              | 15.0C                   |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 09/18/73<br>0915        | 5050           | 23N/13W-36P03 | H                            | 63.0F                   | 6.9 | 255  | --   | --                                                 | --   | --   | --  | --                   | --   | --   | --         |           |     |     |
|                         |                |               |                              | 17.2C                   |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 1-12 LAYTONVILLE VALLEY |                |               |                              |                         |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 09/18/73<br>1310        | 5050           | 21N/15W-01L02 | H                            | 64.0F                   | 7.4 | 430  | --   | --                                                 | --   | --   | --  | --                   | --   | --   | --         |           |     |     |
|                         |                |               |                              | 17.8C                   |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 09/18/73<br>1250        | 5050           | 21N/15W-12M02 | H                            | 63.0F                   |     | 100  | --   | --                                                 | --   | --   | --  | 3.7                  | .0   | --   | --         | 30        |     |     |
|                         |                |               |                              | 17.2C                   |     | 84   |      |                                                    |      |      |     |                      | .10  | .00  | --         |           |     |     |
| 1-13 LITTLE LAKE VALLEY |                |               |                              |                         |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |
| 09/18/73<br>1405        | 5050           | 18N/13W-08L01 | H                            | 62.0F                   |     | 205  | --   | --                                                 | --   | --   | --  | --                   | --   | --   | --         |           |     |     |
|                         |                |               |                              | 16.7C                   |     |      |      |                                                    |      |      |     |                      |      |      |            |           |     |     |

TABLE E-1 (Cont)  
MINERAL ANALYSES OF GROUND WATER

| DATE<br>TIME  | SAMPLER<br>LAB | TEMP  | FIELD                |    | MINERAL CONSTITUENTS IN |    |    |    |     |      |     |     |                            |    | MILLIGRAMS PER LITER |     |    |     |  | MILLIGRAMS PER LITER |  |  |  |  |
|---------------|----------------|-------|----------------------|----|-------------------------|----|----|----|-----|------|-----|-----|----------------------------|----|----------------------|-----|----|-----|--|----------------------|--|--|--|--|
|               |                |       | LABORATORY<br>PH     | EC |                         |    |    |    |     |      |     |     | MILLIEQUIVALENTS PER LITER |    |                      |     |    |     |  |                      |  |  |  |  |
|               |                |       |                      |    | PERCENT REACTANCE VALUE |    |    |    |     |      |     |     |                            |    |                      |     |    |     |  |                      |  |  |  |  |
|               |                |       |                      |    | CA                      | MG | NA | K  | CO3 | HCO3 | SO4 | CL  | NO3                        | B  | F                    | TDS | TH | SAR |  |                      |  |  |  |  |
|               |                |       |                      |    |                         |    |    |    |     |      |     |     |                            |    |                      |     |    |     |  |                      |  |  |  |  |
|               |                |       |                      |    |                         |    |    |    |     |      |     |     |                            |    |                      |     |    |     |  |                      |  |  |  |  |
| 1             |                |       | NORTH COASTAL REGION |    |                         |    |    |    |     |      |     |     |                            |    |                      |     |    |     |  |                      |  |  |  |  |
| 1-13          |                |       | LITTLE LAKE VALLEY   |    |                         |    |    |    |     |      |     |     |                            |    |                      |     |    |     |  |                      |  |  |  |  |
| 18N/13W-20H03 |                |       | M                    |    |                         |    |    |    |     |      |     |     |                            |    |                      |     |    |     |  |                      |  |  |  |  |
| 09/18/73      | S050           | 58.0F | 23S                  | -- | --                      | -- | -- | -- | --  | --   | --  | 5.9 | 2.8                        | -- | --                   |     |    | 102 |  |                      |  |  |  |  |
| 1440          | S050           | 14.4C | 226                  |    |                         |    |    |    |     |      |     | .17 | .05                        | -- | --                   |     |    |     |  |                      |  |  |  |  |

Appendix F, "Waste Water Data", which appeared in certain volumes of the Bulletin No. 130 series, has been discontinued. For information regarding waste water, the reader is referred to the recently reactivated Bulletin No. 68 series: "Inventory of Waste Water Production and Waste Water Reclamation Practices in California".

